

# American Aviation

The Independent  
Voice of  
American Aeronautics

15c  
A Copy

Vol. 4 No. 8

Published Twice a Month

Sept. 15, 1940

\$3.00 a Year

## Fortnightly Review

### Mr. Hinckley's Great Boondoggle

**A** TELESCOPIC lens is not necessary to perceive the two-fold tragedy of the enlarged Civilian Pilot Training Program which began June 15. Neither are sensitive nostrils necessary to detect the odor beginning to arise from one of the most shameful chapters in the history of civil aviation.

On the one hand stark realism forces the conclusion that the \$37,000,000 civilian training program is of such negligible value to the military services as to be a waste of government funds and a hoodwinking of the Congress that appropriated the money.

On the other hand the promoters of the program have accomplished in the short period of a few months the wrecking of the career inspection service of the CAA and the throwing of the government's aviation personnel into the most turbulent and demoralizing condition in aviation history.

Between these two major "accomplishments" is a string of sorry episodes indicating that the CPTP in its second stage starting June 15 is the most grandiose boondoggle in aviation history with a stench so strong that only a Congressional investigation will get to the bottom of the mess.

It is the story of the grasping for power, of reckless abandon, of arrogant dictatorship, of personal ambitions—all at the expense of safety, economy and constructive accomplishment.

With the first year's CPTP and its training of 9,000 civil pilots (35-50 hours each) with \$4,000,000 in federal funds, we were in full accord. *We favor the continuation of such a program.* Putting aside certain deficiencies of minor importance, *the first year's program boomed civil aviation rapidly, constructively and with phenomenal safety.*

**T**HE new program is a different story.

Early this year Mr. Robert H. Hinckley, then chairman of the Civil Aeronautics Authority, asked Congress for \$5,000,000 to continue CPTP for a second year. This was an increase of a million dollars, a reasonable figure. The program was to be entirely civilian.

Then came reorganization of the CAA, a reorganization about which Mr. Hinckley has yet to explain. On May 29 Mr. Hinckley appeared before the House appropriations committee to ask for additional funds—\$32,000,000 more—for the training of 50,000 military pilots. The President had previously announced plans for this expanded program with Mr. Hinckley at his side. Throughout the entire testimony before the committee there was constant reference and understanding of the military value the expanded training program would have.

Mr. Hinckley proposed to train 50,000 students in the primary course (35-50 hours). Out of this number, 9,000 would be sent through the CPTP secondary (advanced) course between now and next June, the two CPTP courses, primary and secondary, supposedly being equivalent to the Army's primary course. It was the hope that the Army could take CPTP secondary course graduates and move them into the Army's basic course, thus skipping the Army's primary. Mr. Hinckley's testimony was flowery with generalities but mighty sparse in details. But it sounded good even though the Congressmen listening to it obviously did not

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## Large Contracts Break Jam; Navy Negotiations Progress

### Building Additions



Glenn L. Martin

President and general manager of the Glenn L. Martin Co., has announced the first of a series of factory additions. (See story on page 28.)

### TOM HARDIN JOINS CAB FOR PAA TRIP

**Gets Leave From TWA to Accompany Sam Gates to Latin America on Mail Rate Study**

Thomas O. Hardin, former chairman of the Air Safety Board and now vice-president of Transcontinental & Western Air Inc., has been given a leave of absence by TWA to make a two month's trip in South and Central America for the Civil Aeronautics Board.

Hardin will accompany Sam Gates, international consultant to the CAB, who is directing the extensive air mail rate investigation of Pan American Airways. The two officials will leave about Oct. 1. Request for Hardin's services was made by the CAB.

The Pan American rate study is the most far-reaching project yet undertaken by CAB because the study goes back 10 years and covers the extensive system of Pan American to the south. Auditors and inspectors have been over the system during the last year and the rate hearings are

(Turn to page 14, col. 4)

### Military Departments In Joint Agreements For Engines, Propellers

**T**HE JAM on airplane, engine and propeller orders for national defense was further broken at the beginning of the month as the War and Navy Departments cleared large contracts through the National Defense Advisory Commission for a variety of flying equipment.

#### War-Navy Agreement Wright Engines Curtiss Propellers

Announcement was made of an understanding whereby the Army will deal exclusively with Wright Aeronautical Corp. for Wright engines and with Curtiss Propeller Division for Curtiss propellers for combined Army and Navy requirements. The entire joint requirements of both the Army and Navy for the fiscal years 1941 and 1942 are approximately 20,000 Wright engines and 14,000 Curtiss propellers.

Guy W. Vaughan, president of Curtiss-Wright Corp., said the deal with the C-W concerns will involve about \$323,000,000.

#### Navy-War Agreement Pratt & Whitney Engines

The Navy Dept. on Aug. 29 announced that an agreement had been reached with United Aircraft Corp. with full approval of the War Dept. under which the Navy's Bureau of Aeronautics would take over the purchase of approximately 17,000 Pratt & Whitney engines covering the entire joint requirements of both the Army and Navy for the fiscal years 1941 and 1942. The dollar value of this contract will amount to approximately \$160,000,000.

#### Bombers, Pursuits Boeing, Lockheed

On the following day the War Dept. revealed awards of contracts for airplanes as follows:

BOEING AIRCRAFT CO., Seattle, Wash., 277 heavy bombing airplanes with spare parts .....	\$70,449,955.20
LOCKHEED AIRCRAFT CORP., Burbank Cal., 410 interceptor pursuit planes with spare parts	\$30,276,787.00

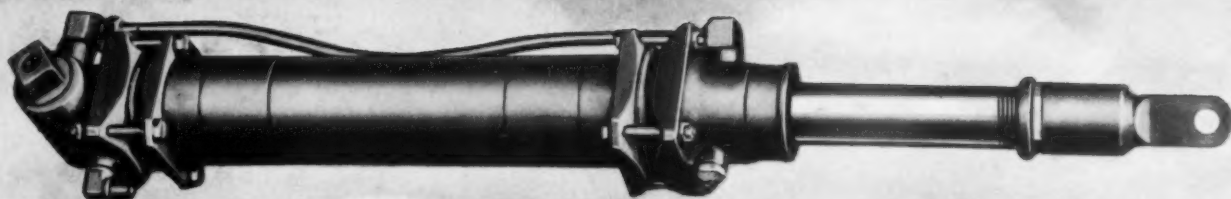
#### Trainers, Transports Vultee, Beech, Ryan

Eight hundred and fifty training planes were covered in three awards

(Turn to page 10, col. 1)

# PESCO

## HYDRAULIC CYLINDERS



Retractable  
Landing Gear Cylinder



Wing Flap  
Cylinder

Here are a few of the Pesco Hydraulic Cylinders and Locks now in service on modern aircraft.

These units combine meticulous design, carefully selected materials and precision workmanship to achieve the utmost in strength and dependability with minimum weight. Pesco engineers are prepared to design and build similar equipment for applying hydraulic power to a wide variety of mechanical functions.



Bomb Door  
Cylinder



Tail Wheel  
Cylinder



Lock for  
Extended  
Landing Gear



Lock for  
Retracted  
Landing Gear



Retractable  
Landing Gear  
Cylinder

### PUMP ENGINEERING SERVICE CORPORATION

DIVISION BORG-WARNER CORPORATION

12910 TAFT AVENUE

CLEVELAND, OHIO, U. S. A.

## Flying Weather Study Completed by WPA

The job of analyzing, tabulating and charting data on the country's flying weather, a project considered valuable to both commercial and military aviation, has been completed by the WPA at New Orleans, La., and is to form the basis for a publication soon to be issued by the U. S. Weather Bureau, sponsor of the study.

The project includes details on hourly surface weather observations over a five-year period from 260 airports throughout the U. S. as well as information on upper air currents taken from balloon observations at 120 airports during a 10-year period.

One series of charts showing the percentages of time that surface visibility is one mile or less, that the ceiling is 1,000 feet or less and that dense fog is present, indicates that the southwestern U. S., especially New Mexico and Arizona, has the best year-round flying weather. Worst flying conditions are revealed along the northwest Pacific Coast and the western mountain region—at Siskiyon Summit, Ore., for example, where visibility is a mile or less 13.2% of the time, the ceiling 1,000 feet or less 16.7%, and where dense fog exists 8.6% of the time.

Leslie Smith, supervisor of the WPA weather project, explaining the value of the survey to aviation, said: "This study will show the average percentage of time each type of weather exists in all sections of the country. Therefore it will enable commercial airlines to avoid those sections where local flying conditions are generally bad and map their routes to take advantage of prevailing winds and favorable conditions." The data are also expected to be of use in establishing air bases and training areas for national defense.

The weather bureau publication, to be available to airlines, airports, meteorological and flying schools, will contain monthly and annual surface wind charts for all sections of the country, a study of visibility, ceiling, fog occurrences, thunderstorms and precipitation. At present time the flying weather information is being reduced to punch-card form so that it may be assembled quickly in detail for any location.

## MERIT AWARD TO LEE

United Pilot Honored by Association of Men With Wings

E. Hamilton Lee, a senior pilot on United Air Lines' western division, received the annual merit award of the Association of Men With Wings at a joint dinner of the association and Air Service Post 501, American Legion, in New York on Sept. 10.

The award is a silver plaque on a mahogany base and went to Lee in recognition of 2,000,000 miles of "unspectacular flight over a period of 20 years without injury to passengers or himself, plane or cargo."

## ALPA Meets Nov. 29-Dec. 2

The 1940 convention of the Air Line Pilots Association will begin on Nov. 29, continuing through Dec. 2 in Chicago, it has been announced by David L. Behncke, ALPA president.

## AOPA Breakfast Sept. 22

The Aircraft Owners and Pilots Association has announced a breakfast flight for Sept. 22 to Wings Field, Ambler, Pa., 13 miles northwest of Philadelphia. Rain date has been set for Sept. 29.

## Why Surgical Dressings?

Johnson & Johnson, surgical dressing manufacturer, is building in Chicago the world's first commercial display sign designed to be seen only by airplane passengers. The sign is built entirely of Neon tubing and is being erected on the roof of the J & J plant which faces directly on Chicago Municipal Airport. It will be horizontal instead of vertical and will be illuminated day and night.

## Calendar

- Sept. 15—Dedication of New Hangar & Administration Building, Barnes Airport, Westfield, Mass.
- Sept. 22—Aircraft Owners and Pilots Association Breakfast Flight to Wings Field, Ambler, Pa. Rain Date, Sept. 29.
- Oct. 5—Mountain State Forest Festival Air Show, Elkins, W. Va.
- Oct. 7—Air Line Mechanics' Association, Annual Convention, Chicago, Ill.
- Oct. 7-11—National Safety Congress & Exposition, Stevens Hotel, Chicago, Ill.
- Oct. 14—Annual Dinner of SAE, Hotel Commodore, New York, N. Y.
- Oct. 17-19—NASAO's Annual Convention, Louisville, Ky.
- Oct. 31-Nov. 2—SAE's National Aircraft Production Meeting & Engineering Display, Hotel Biltmore, Los Angeles, Cal.
- Nov. 1-3—University of Michigan-Life Conference on New Technologies in Transportation, Ann Arbor, Mich.
- Nov. 29-Dec. 2—Air Line Pilots Association, Annual Convention, Chicago, Ill.
- Dec. 17—Wright Brothers Lecture for 1940, by Dr. Sverre Pettersen.
- Jan. 6-10—SAE's Annual Meeting & Engineering Display, Book Cadillac Hotel, Detroit, Mich.
- Jan. 10-12—1941 All-American Air Maneuvers, Miami, Fla.
- Jan. 29-31—9th Annual Meeting of the Institute of the Aeronautical Sciences, Columbia University, New York, N. Y.

## McGrath Heads Campaign

An aviation division of the U. S. Committee for the Care of European Children Inc. has been formed under the chairmanship of William F. McGrath, eastern manager of traffic and sales for TWA, to solicit financial support of airlines to aid in the work of the committee. Subcommittees, it was announced, would be formed to direct publicity.

## Rep. Randolph Urges U. S. Department of National Defense, Expansion of Airlines

Formation of a single Department of National Defense, in which the Army, Navy and the air forces would be on an equal footing, was recommended on Aug. 19 by Congressman Jennings Randolph (D., W. Va.) in a radio address.

Speaking on National Aviation Day, Rep. Randolph also urged decentralization of defense factories, establishment of standing committees on aviation in both the Senate and House, expansion of airlines and formulation of a definite federal airport program.

"In the President's cabinet, instead of having a separate Department of War and a separate Department of Navy with military aviation scattered between them, there should be a single Department of National Defense under which the three great arms of our nation's power may be coordinated on an equal footing," Rep. Randolph said.

"Our fighting forces by air, by land and by water should, on an equal basis, find a place in a single great Department with one coordinating head at the cabinet table. Sen. Clark, of Missouri, and myself have introduced in Congress legislation which would make this a reality. This proposal will be vigorously pushed."

## Urges Decentralization

Concerning factories, he said that "for many years I have been firmly convinced that our aircraft and allied industries are located so as to be vulnerable to possible aerial attack . . . With each passing month since that time, the need for decentralized defense factories has become more apparent. I trust protective action in the expansion program will bring the establishment of defense units in many parts of America which are removed from our borders."

Discussing air transportation, Rep. Randolph said: "In a matter of hours,

## Recovering



Roscoe Turner

Famous speed flyer and school operator is recovering in an Indianapolis hospital from injuries received in an automobile accident.

## Wright Gets SAE Post; Will Head Defense Group

Theodore P. Wright, vice-president of Curtiss-Wright Corp., has been appointed chairman of the SAE aeronautical standards board for national defense.

The new board will undertake a co-operative program of development and coordination of aircraft standardization in connection with national defense.

Wright is on leave from C-W to serve as executive officer of the airplane and engine division, National Defense Advisory Commission.

every resource of the airlines, personnel and equipment, can be devoted to the execution of plans for assisting in the mobilization of our military air force at any point throughout the western hemisphere. Unlike any other peacetime industry, the airlines, because of their mobility, bear a unique relationship to the national defense.

"Of all peacetime industries, this alone can and will be used as a whole, if need be, in the defense of our country, through acting as the vital transportation complement of our military air forces as may be required. It is for this reason that the policy of our War and Navy Departments is to maintain the airlines at all times as a functioning unit.

## Role of Airlines

"It is more important probably than in the case of any other industry that there should be applied to the airlines the principle of keeping personnel in their civilian positions when our manpower is conscripted, and of providing even for the expansion of our airlines, both in terms of personnel and equipment. This expansion is so important to our national defense that it is entirely probable that the War Department might even assign to the airlines certain of its own personnel and equipment, if need be."

The Congressman said, "we need, at once, to formulate a federal airport program whereby landing fields by the thousands will be built in America."

Pointing out that shipping, land transportation and roads have special Congressional committees, he said, "it is entirely proper, therefore—indeed, it is necessary—that transportation by air and the essential matter of building roads in the air should receive the exclusive attention of a standing committee charged exclusively with the duty of fostering and developing aviation."

## PFA Sees 500% Gain In Flying; 'Death and Destruction' As Result

An estimate of a 500% increase in 1940 flying over 1939, and even greater increases in 1941, has been made by Private Fliers Association in a bulletin to members. The bulletin predicts resultant "death and destruction" at already over-crowded airports unless the federal government quickly adopts and installs a federally financed airport and flying field program.

With current programs for 45,000 new civilian pilot trainees, added thousands of Army and Navy cadets, and a tremendous growth in civilian pleasure flying, the present airport system is hopelessly inadequate, the report said.

## Capt. Harris and Price Given Flying Crosses

The award of distinguished flying crosses to Capt. George E. Price and Capt. Samuel R. Harris Jr. of the Army Air Corps has been announced by the War Dept.

The citation for Capt. Price commended his "extraordinary achievement" while in flight on Jan. 6, 1940, at Buffalo, N. Y., "when a structural failure in the new type airplane (Bell P-39 Airacobra) in which he was making a high speed power calibration test resulted in the malfunctioning of the landing gear, causing the wheels to become locked in a partially retracted position." Although his radio transmitter had failed, Capt. Price made a wheelup landing without material damage to the craft.

Capt. Harris was cited "for extraordinary achievement in aerial flights." While assigned as a test pilot for four and one-half years at Wright Field, Dayton, O., he flight tested more than 200 different types of planes, "many of extremely hazardous, experimental design," without the loss of a single airplane. Capt. Harris continued the tests despite "frequent forced landings due to experimental engine or structural failure."

## Col. Connolly to NACA

President Roosevelt on Sept. 6 named Col. Donald H. Connolly, administrator of Civil Aeronautics, to the National Advisory Committee for Aeronautics, succeeding Clinton M. Hester, former administrator.

## War Dept. Invites Latin Americans to Visit U. S.

The War Dept. has invited chiefs of staff and one officer from each South and Central American republic to visit the U. S. to acquaint them with military establishments here. The visits will be in two groups: Oct. 1-14 and Oct. 16-30. The visitors will be transported to six points by Army planes.

## PAA Awards Students

Pan American Airways has announced awards of its travel fellowships to outstanding students of 11 countries of the Southern Americas. Winners from three additional countries will be selected shortly. They will arrive in the U. S. this fall to enter study at various schools and colleges.

## 'Unheard Of'

How an eight-man Army bomber crew can bail to safety out of a falling craft was demonstrated on Aug. 30 near Kalama, Wash. The unusual feat occurred shortly before a Douglas B-18A crashed as the result of failure of one engine. Col. Carlyle H. Wash, commander of McChord Field, where the bomber was based, said: "It's unheard of for so many men to successfully escape by parachute in such circumstances." First Lt. Jack N. Donohew, pilot, was last to leave the plane.

## News in Pictures



The three outstanding pilots in the CAA training program, winners in the contest sponsored by the Institute of the Aeronautical Sciences for the Shell Intercollegiate Aviation Scholarships, are shown receiving their checks from Robert H. Hinckley, assistant secretary of Commerce. L. to R.: Waldo E. Schroeter, University of California, \$500; Jefferson Davis Lewis, University of Florida, \$750; Hinckley, and Edward F. Scanlon, Kenyon College, \$1,000.



Braniff Airways has started a new sales campaign in Kansas City whereby temporary information offices are set up in lobbies of principal buildings. Staffed by personnel of Braniff's Kansas City sales organization the building lobby offices are "a public service offered by the building management and Braniff Airways." Schedules and fares on all airlines to all points from KC are given out in the service. The idea will be carried out in other cities along the Braniff route, Charles E. Beard, Braniff vice president, said. The picture shows Miss Mary Beal in the line's Commerce Trust Bldg. office.



Miss Gena Novak (left), vice president, and Miss Chelle Janis, president of the Women Flyers, board an Eastern Air Lines Silverliner at New York Municipal Airport for Washington, D. C., where they visited Washington's Green Guards, women's defense organization.



There was a bit of good-natured byplay as John Herlihy, vice president of operations of United Air Lines, boarded one of TWA's Stratoliners at Chicago for New York. He is shown being given a super welcome by Hostess Geraldine Marvin. Reason for the flight: Herlihy wanted to ride in the Stratoliner.

## Willkie Urges Separate Air Force, Assistant Aviation Secretaries

The importance aviation will play in the coming election was presaged Aug. 28 when Republican presidential nominee Wendell Willkie advocated a separate air force on equal footing with the Army and Navy, and also urged immediate appointment of assistant secretaries for air in both the War and Navy Departments.

The assistant secretaryships, although still authorized by law, have remained vacant under President Roosevelt's administrations for reasons of "economy."

New Deal circles are reported to have been no end perturbed over Willkie's statement on these positions, because it is said to have come just as President Roosevelt was about to announce that he would fill them. This put the President in the position of having the Republicans take the credit if he made the announcement. Up to press time, no action had been taken by the White House.

Just where Willkie obtained his information concerning the President's intentions has not been disclosed, but

there has been talk of a "leak" within the New Deal.

In a recent defense message to Congress, President Roosevelt said aviation should remain as an "auxiliary" to the Army and Navy.

Willkie on Aug. 28 said: "In connection with any suggestion that there should be created a position in the cabinet for aeronautics, I want to make another suggestion immediately. The President should appoint at once an assistant secretary for air in both the War and Navy Departments.

"These positions have been vacant ever since the President came into office in 1933. The failure to fill them is in part the cause of the present lamentable situation with reference to our aeronautical development. At the time, he (Roosevelt) declared that he was not making these appointments 'in the interest of economy.' I doubt if, in view of the subsequent expenditure of \$60,000,000 by his administration, that is a valid excuse for continuing the vacancies which would cost \$24,000 a year to fill."

## Jesse Jones Expected To Get Commerce Post

Jesse Jones, federal loan administrator, will accept the post of Secretary of Commerce, succeeding Harry Hopkins, if Congress enacts special legislation permitting him to head both the RFC and Commerce.

House Joint Resolution 602 authorizing Jones to hold both posts had been reported out to the House as this issue went to press. There was every prospect that it would pass both houses. Assistant Secretary of Commerce Robert Hinckley will be acting secretary until Jones takes over.

### Division Revises Name

The name of the Automotive-Aeronautics Trade Division of the Department of Commerce has been changed to Motive Products Division, effective as of Aug. 14, the division has stated. The Railway Equipment Section, formerly a part of the Transportation Division, has been transferred to the Motive Products Division. P. B. Matix is division chief; Brower V. York is chief of the aeronautics section.

### Nebraska Issues Maps

Lincoln, Neb.—The Nebraska Aeronautics Commission has issued a booklet of maps of all Nebraska airports, including detail and approach maps of individual landing fields.

## War Dept. to 'Move in' on 50 Airports; Cornish Concerned About Private Flyers

Plans of the War Dept. to "move in" on some 50 existing municipal and other airports for use by tactical and training units is being done "with little consideration for the present or future welfare of the fixed base operators and private flyers." Clarence F. Cornish, manager of Ft. Wayne (Ind.) Municipal Airport and secretary of the American Association of Airport Executives, states in his Sept. 3 bulletin to members.

"The present scramble for usable airports for military use discloses that the War and Navy Departments have failed to provide plans for an adequate network of airports as has been suggested and advocated by the CAA and this and other organizations for years," he said.

"It now becomes evident that with the taking over of the majority of our present modern municipal airports by these departments, that then these

same communities will be, and some are now, confronted with the problem of providing additional airports and housing facilities for the private and fixed base interests, as well as some airlines, in the manner of secondary or duplicate airports at another location.

"The problem and subject of control and management of the airports so involved immediately presents itself. Where will the present airport management find itself in this new picture? Who will be responsible for and control the traffic in this new picture? What will become of the private interests and activities that we have promoted for years? What will we do about our airline situation? These and many other questions immediately come to mind. This is a serious matter and one which will tax the ability, imagination, and resourcefulness of every one of us individually and collectively."

## Army Air Corps Change Proposed; Would Set Up Four Air Districts

The War Department is expected to announce shortly a reorganization of the Army Air Corps which would set up four air districts in the continental U. S., an air force in the Hawaiian Dept., and another in the Panama Canal Dept.

Under the proposed set-up there would be 10 wings (6 pursuit, 3 bombardment and 1 light bombardment) in the U. S., one pursuit wing each in the Panama and Hawaiian Depts., and a composite wing in the Puerto Rican Dept. At present there are three wings in the U. S., and one each in Hawaii and Panama.

Temporary headquarters would be established as follows: Northeast Air District, Mitchell Field, N. Y.; Southeast Air District, MacDill Field, Fla.; Southwest Air District, Hamilton Field, Cal.; Northwest Air District, McChord Field, Wash. More than 25 general officers would be required under the temporary promotion law.

### Lohman Named Air Officer

Col. Eugene A. Lohman, until recently commandant of Kelly Field, was transferred to the 2nd Army and the 6th Corps Area as air officer of that area.

## Bits in the News

ONE OF THE VERY FEW MEN who learned to fly in the early 1900's who still holds a pilot's license is Richard H. Depew, Jr., vice-president-general manager-treasurer of Taylorcraft Aviation. Depew made his first solo flight 29 years ago on Aug. 13, 1911. . . .

MRS. AMOS ("DOT") CULBERT, wife of the vice-president and treasurer of Chicago & Southern Air Lines, having soloed, now has 28 hours flying to her credit. Her instructor was Clyde Brantton, operator at Lambert-St. Louis Airport. . . .

AL BENNETT was featured in the "Wings Over America" program on Sept. 8 over NBC's Red network. . . .

IN RECOGNITION of his unique services to aviation, Honorary Pilot Certificate No. 1 was presented to Orville Wright during ceremonies dedicating Wright Memorial at Dayton on National Aviation Day. The presentation was made by Edward P. Warner, vice-chairman of the CAA. . . .

NATIONAL AVIATION DAY also marked the first landing of any type of aircraft at the NY World's Fair. Eastern Air Lines' Capt. JOHN M. MILLER flew the line's Kellett autogiro with cachet mail from the Court of Peace to La Guardia Field, officially opening the Fair's Aviation Week. . . .

A TRIBUTE to its employees was paid by American Airlines in an advertisement which appeared during the week beginning Aug. 26 in 16 metropolitan newspapers in 14 cities along AA's routes. The ad's copy placed emphasis on "the people who operate American's . . . system. They've caught hold of something—all of them, from mechanic to engineer, from porter to pilot—that inspires them to meet the public more than half way." . . .

FIVE SALES conferences in as many key cities of the U. S. were covered by executives of Certain-Teed Products Corp., within a total elapsed time of five days, commencing Sept. 3, by traveling the commercial airlines. . . .

THREE TONS of air mail were flown over the Seattle-Juneau route of the Alaska Clipper during the first full month (July) of operation. The effect of PAA's new service on its Juneau-Fairbanks service has been to send that route's poundage to a record high of 3,850 lbs. for July. . . .

PREPARATORY TO LEAVING his position as Postmaster General, JAMES A. FARLEY issued a statement reviewing improvements in the postal service during the last seven years and pointing to "the extension of the air mail service by thousands of miles, including the inauguration of trans-Atlantic and trans-Pacific service, which has been accompanied by a four-fold increase in air mail poundage." . . .

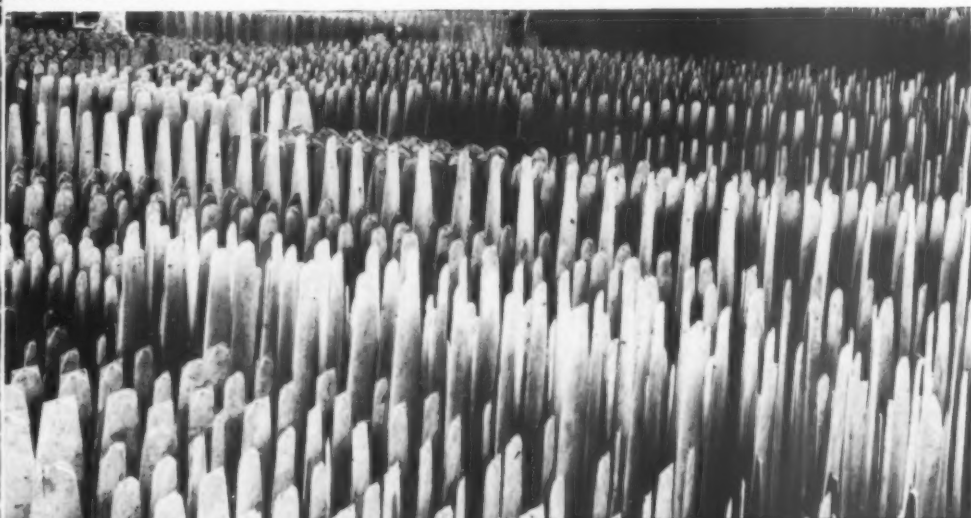
THE 20th ANNIVERSARY of the NY-San Francisco airway, known as AM 1 and operated by UNITED AIR LINES, was observed on Sunday, Sept. 8, marking the transition of the early experimental airway which was established in the last months of President Wilson's regime. Cruising speeds on the route have increased from 100 to 190 mph, and the number of transcontinental refueling stops has been reduced from 14 to three. . . .

A 10-PASSENGER Boeing 247-D commercial transport which formerly flew the routes of Inland Air Lines has been acquired by the Canadian government. Inland in June reported to the CAA possession of six Boeings. . . .

BECAUSE IT WAS ASSUMED that Britain would receive the 54 Brewster F2A types originally ordered by the U. S. Navy and later diverted to (Turn to page 21, col. 3)

# Producing Propellers in Volume

*Finished Domes*



*Blade Forgings*



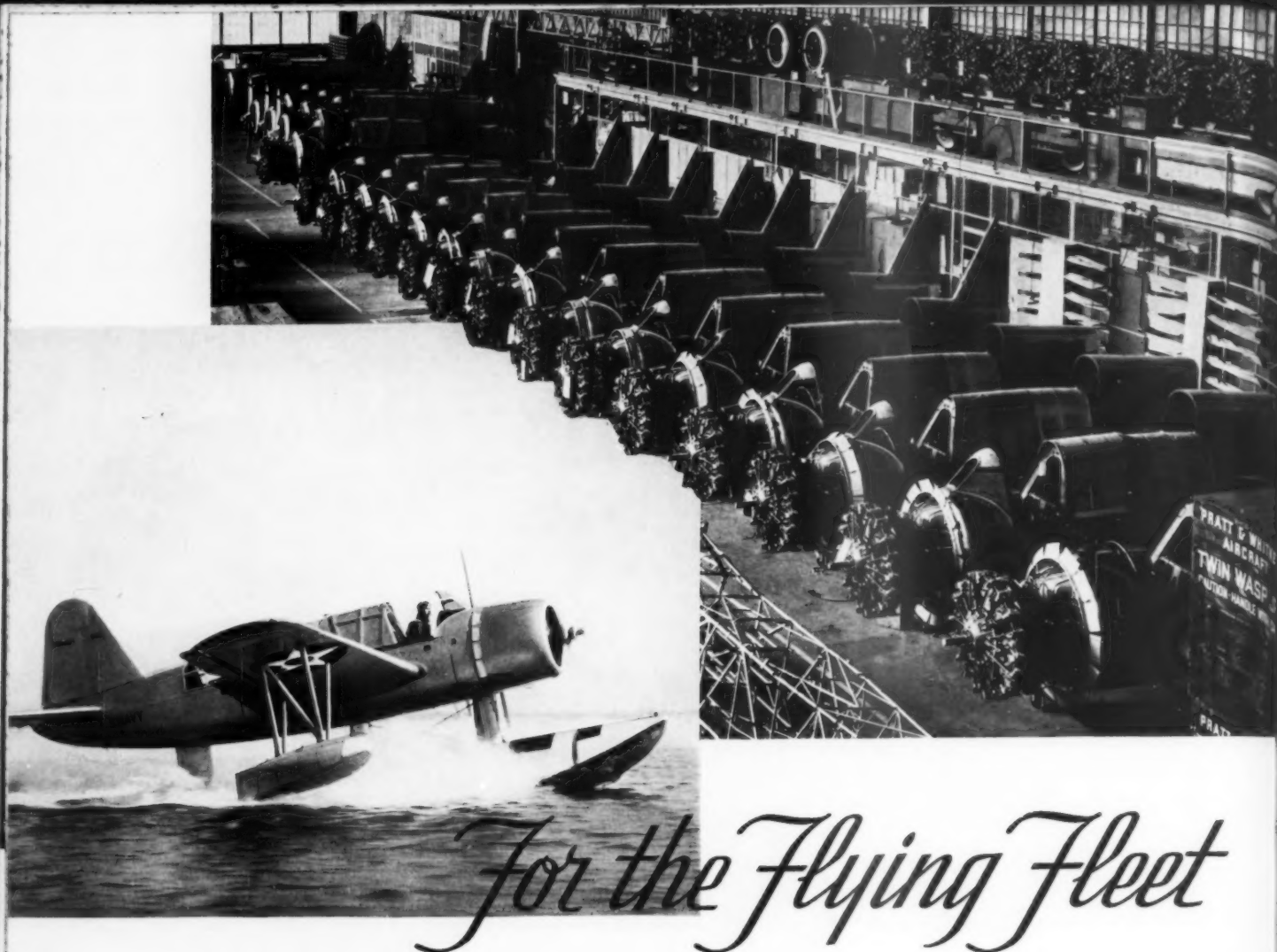
*Finished Hydromatic Propellers*

TODAY at the Hamilton Standard factory, propellers are rolling off the production line at an unprecedented pace. These range from two-blade constant speed propellers for engines in the 300-horsepower class . . . up to giant three and four-blade Hydromatic quick-feathering

types for engines of 2,000 horsepower and more. Behind these propellers lie the more than 15 years of research, design, and manufacture that have made Hamilton Standard propellers the most widely used item of aviation equipment in the world.

Hamilton Standard is ready to play its part in the National Defense program.





In the development of an efficient air arm, the United States Navy has long been the envy of the world. And now, with the new program for a "two-ocean" Navy already under way, the United States will be assured of the mightiest air armada that ever sailed the seas.

For twenty-three years, Vought-Sikorsky airplanes have served the Navy. Today, with a recently-enlarged plant working at top speed, this long experience is bearing fruit in the production of still finer Vought-Sikorsky types for service with the Flying Fleet.

## VOUGHT-SIKORSKY AIRCRAFT



STRATFORD, CONNECTICUT

ONE OF THE THREE DIVISIONS OF UNITED AIRCRAFT CORPORATION

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# Aviation's Future Is Private And Commercial Plane--Stout

## Military Burden Can Be Obviated by Mass Flying of Public

By WILLIAM B. STOUT  
President, Stout Skycraft Corp.  
Dearborn, Mich.

IF TIME is the most valuable of human possessions, then aviation, of necessity, must be the most valuable of transportations in its unexcelled ability to shrink both time and distance.

When a new invention or development appears, it is always impossible for the inventor or the generation which creates it, to see the full scope of its possibilities. The telephone began as a toy for children; the motion picture idea was first displayed in toy form in the shops; the electric light was in the beginning a curiosity much ridiculed.

*This has been true of every new development.*

When aviation came, we were fortunate in having many pioneers of imagination. The Wright brothers, however, who invented the airplane, did not see one iota of what was to come or they might have hesitated to invent such a Frankenstein as the modern combat plane seems to be.

The early pioneers in airlines, in private flying, in radio, in engines and all their details, had not the slightest idea of the tremendous impression which this transportation soon was to make on all civilization.

It is a sad analogy on human affairs that wars and catastrophes must be the means of teaching civilization either its mistakes or its possibilities.

The first World War merely gave an indication of a possible military use for planes, but the generals succeeding that war were able to see only the value of the airplane as it had been in the first war—without enough regard for the progress in size, speed, range and accuracy that had meanwhile been made.

The coming of the metal plane and the possibilities of quantity production meant a great change and was Germany's first step into aviation in a radical way. This present war has suddenly taught the world that in this same airplane is a value hitherto undreamed of—not only in war but in peace. New ways of existence, new areas of civilization, new continents for colonization, new horizons, and new frontiers are immediately opened up as soon as aviation becomes a normal transportation.

An old analogy published by the writer in *Aerial Age* back in 1910 is that of the shrinking of the United States from the railroad to the airplane.

This United States used to be five months wide, but it is now 10 hours wide by modern transport planes and will be no more than that time on schedule within another 18 months.

A man on a horse can ride from one end of Rhode Island to the other, if he averages 15 mph. with relayed horses, in about five hours. A man with an ordinary puddle-jumper costing less than \$2,000 can cross Texas in the same time. In other words, to the man with an airplane, Texas is the same size as Rhode Island is to a man with a horse. From the military standpoint, this fact

is perhaps more important than from the private-owner viewpoint.

### Protection Only by Air

Taking the automobile as an analogy and the speed of a modern tank, the state of Michigan is larger to a tank than Texas is to a cheap airplane. So far as American protection is concerned, tanks, motor cars, motor cycles and blitzkrieg equipment as of today will do for the protection of New England and thickly populated districts, but there is only one way in which our whole United States can be covered and the borders controlled and protected—and that is by air.

The United States and the Americas should have the greatest fleet of usable aircraft of all the nations in the world.

There are two ways in which this can be accomplished. The dictator system is to build tremendous fleets and tanks, guns, motorcycles, trucks, transports, etc., taken out of the taxpayers' money. The public pays for these vehicles but does not get them except in case of war and then they must use them in a war immediately or they become obsolete.

No government is wealthy enough to keep its country continually equipped with fighting units up-to-date, throwing away the old and putting in the new. It can do this only with the American system, which is just the opposite of the totalitarian idea.

In America almost every workman of ability owns his own car.

These cars are on the road continuously and thus develop road service, gas stations, mechanics and profits at no cost to the government. On the other hand, they pay tremendous taxes into the government without quibbling by the public, and the workman has the use of the car.

A few hours' time can convert each one of these into a mobile small gun unit and the taxpayer would be charged only for the military part of the job.

### Aviation Magnified

THE same system probably will attain in America in aircraft. To support 50,000 military airplanes will be a tre-

### 'Shooting for 500 MPH'



During their inspection tour of southern California plane factories, William S. Knudsen, chairman of the National Defense Advisory Commission, and Maj. Gen. Henry H. Arnold, chief of the Army Air Corps, paid an extended visit to Lockheed Aircraft Corp. where they inspected the Lockheed P-38 twin-engine interceptor, reputed to be the world's fastest military plane. During the inspection tour, it was admitted the prototype of this new fighter had attained a speed of more than 460 mph., and Army officials said, "we are shooting for 500 mph." with the production model. Shown left to right are Knudsen, Gen. Arnold and Robert E. Gross, Lockheed president, in front of the interceptor.

mendous tax burden on the public.

It is well within reason, however, to state that eventually we will have hundreds-of-thousands of airplanes, big and little, paying taxes into the government and doing their work day by day in the interest of commerce. Most of them will be privately owned; some of them will be commercially owned by companies; a few will be directly military.

The privately owned ships will be kept up-to-date year by year as planes improve, numbers increase, and their uses become more general.

If this country can have several hundred thousand small planes, even if they can only make two or three miles per minute, we have a potential military strength that could be equalled by no other nation on a totalitarian basis.

This is the strength of a republic.

*America is not a democracy, and never will be.* It was created a republic, with officers, not a mob, in control—and under that form of government can still exist.

Here is where everyone can own an airplane and fly it, and in case of danger use it for military value. This is but a proof that this form of government can protect itself even better than the totalitarian, provided the same degree of intelligence is kept active and up-to-date on every phase of defense and attack. *This nation cannot be soft!*

And so the great air developments will be commercial and private—not military or governmental. The present day passenger airlines are one example, for the best military planes flying today were developed from our own commercial transports. The next great phase of plane operation is transports for freight.

The development of big bombers and transport carriers is important, but a great expense. The development of large, heavy-duty freight airplanes for actual freight service can be made a paying development.

Once we get to planes of 10 to 20 tons freight capacity, we will begin to haul loads on a basis of economy unheard of on the road. Necessity for fast delivery schedules can build a tremendous business in a short time.

These freighters carrying the commerce of the Americas at comparatively slow speeds can well become the backbone of military, infantry and troop movements in case of emergency, but meanwhile would be earning dividends and paying taxes rather than being tax parasites on a totalitarian public.

It is time that a flying truck or box car of real dimensions and capacity was developed, for an express volume equal to no air business so far is waiting for just such a development and activity.

### Major Method by Air

Add to this the private owner; once we get planes below \$1,000 there will be tens of thousands of these flying in all directions. Just how they will be controlled, how the airports will be arranged and what the training periods and restrictions will be, we do not know; but in the United States and Canada, and in all the countries of the world, the air is eventually going to be the major method of travel—cheaper, faster, safer, more convenient.

There is not one private owner, low-priced airplane factory that has not more business than it can take care of,

### Loyal Sons

More than 40 employees of Trans-Canada Air Lines have entered Canada's fighting forces. A dozen have become air force pilots and one has been killed in active service. All TCA pilots have voluntarily offered their services as instructors during their spare time and many have ferried planes across the border from the U. S.

and more planes would be put out if more engines could be had. It looks as though the low point in all airplane production during the next few years would be engines.

However, when we once get an engine in volume enough to put the price where it should be, and an adjustable pitch propeller; get rid of our struts and landing hazards; get cheap two-way radio; low-cost instruments and a ship that will fly itself in blind weather, aviation, for everybody, will really be here.

It is my opinion that all of these things are only a few years off and eventually we will be turning out as many of these small planes for private owners per day as any one of the automobile companies is doing now. Hasten the day—for when it comes conscription and military activity will be relegated back to proper place.

A maze of private owners immediately available with their planes as a background of a national defense cannot be flouted by armies and navies of the old type.

We are in a technical age and opinions, beliefs, and politics are bound to fade out, as did the horse and the stage coach, in favor of knowledge and certainty through research in the things we do for humanity.



## Easy Way to an Empire

Southwest to the border, many huge defense industries and training bases are springing up, again expanding the wealth of this fabulous 5-billion-dollar-empire market. For business' sake, you should take a swing through it. The easy way is by Braniff—from Chicago or Kansas City in just a few pleasant hours.

**BRANIFF**  
*Airways*

"GREAT LAKES TO THE GULF"



## Export-Import Bank Increase Pending Action in Senate

Having passed the House the bill extending the lending authority of the Export-Import Bank by \$500,000,000 to a total of \$700,000,000 is now pending in the Senate with prospects of early passage.

The bill will have far-reaching effects in aviation since the House removed the restrictions upon purchases by Central and South American countries of American-made aircraft and aeronautical equipment.

It is believed the Administration intends to assist nations to the south in building up their military forces, although emphasis so far has been on financial aid for economic purposes. The House went so far as to remove the limit on loans to any one country.

It is considered significant that Warren Lee Pearson, president of the Bank, is now on a two month's tour of South America.

## Wilbur Shaw Manages Firestone Aero Section

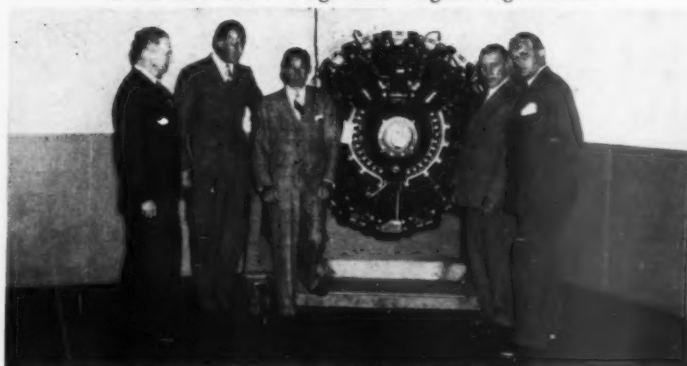
Wilbur Shaw, noted auto speed driver and president of the Indianapolis Aero Club, has been appointed manager of the aeronautics division of Firestone Tire & Rubber Co., Akron, O.

Shaw, a Quiet Birdman, also is a member of the National Aeronautic Association.

### Crowell Named

Benedict Crowell, president of Central National Bank of Cleveland, has been named by Secretary of War Stimson as special consultant on the defense program for an indefinite period. He is former assistant secretary of War and during the World War was Director of Munitions.

## Ford and P&W Negotiate Engine Agreement



Officials of Ford Motor Co. visited Pratt & Whitney Aircraft Division of United Aircraft Corp. at East Hartford, Conn., recently and inspected the Double Wasp engine which they will build in quantities for the U. S. Under the terms of a license agreement offered by P&W, Ford will pay a license fee of \$1 per engine to P&W.

Left to right: Dr. George Jackson Mead, director of the plane and engine division of the National Defense Advisory Commission; Frederick B. Rentschler, chairman of United Aircraft; Edsel Ford, president of the Ford company; Eugene E. Wilson, president of United Aircraft, and Charles Sorensen, Ford general manager.

## CONFERENCE DATE SET University of Michigan-Life Confab to Hear American Airlines Head

C. R. Smith, president of American Airlines, will be one of the speakers at the three-day "University of Michigan-Life Conference on New Technologies in Transportation" at Ann Arbor, Mich., beginning Nov. 1.

Sponsored jointly by the University of Michigan and Life magazine, the conference is "designed to examine new methods, new materials and new directions in the transportation field," dealing with aspects of engineering, metallurgy, thermo-dynamics, structure, tensile strength, speed and capacity in the fields of air transportation, automotive, highway, rail and marine transportation.

## Plane Fabric Makers Indicted by U. S. In Anti-Trust Suit

Three airplane fabric manufacturers, one distributing organization, and six individuals, were named in the first indictment handed up, Aug. 27, by federal grand jury, New York, which since July 11 has been investigating alleged price-fixing and anti-trust law violations in the country's war industries.

Charged with conspiracy to fix prices in violation of the Sherman Anti-Trust Act, are: Wellington Sears Co. Inc., New York, with Weston Howland, vice president, W. O. Hay, in charge of production and sales, and Howard M. Brigham, in charge of aircraft fabric sales; Suncook Mills, Suncook, N. H., with J. Linzee Weld, clerk and treasurer, and Val Diets Jr., in charge of sales; Thurston Cutting Corp., New York, with W. Harris Thurston, president; and Air Associates Inc., jobber at Garden City, N. Y.

Samuel S. Iseks, special assistant to Attorney General Robert H. Jackson, explained that the government would try to show that the defendants had maintained identical prices since 1936 for aircraft fabric made for use on wings, tails and rudders of Army planes, as well as on small private aircraft. Specifically, he said, the indictments charge that the defendants raised the fabric price on Oct. 1936 from 28¢ to 36¢ a yard to wholesalers, and from 44¢ to 75¢ a yard to small purchasers. Conviction for conspiracy entails a possible maximum prison term of two years and a fine of \$10,000 to individuals.

In reply to the Department of Justice charges the defendants are expected to state: (a) there is no "bottleneck" in the airplane fabric industry since all deliveries are on schedule; (b) the airplane fabric phase of the fabric industry represents only a small part of total business, for example, 1% of Wellington Sears' volume and 7% of Suncook Mills'; the two largest airplane fabric producers; (c) profits on plane fabrics are low; (e) recent bids at Wright Field for plane fabric were submitted by six firms, indicating the existence of competition; (e) charges that prices rose "overnight" are unfounded, since price increase was over a four-year period and caused by 10% wage lift, higher taxes and rising raw material costs.

### Navy Takes Coast Guard Base

The Cape May (N. J.) Coast Guard Air Station recently was taken over by the Navy Dept., and Lt. Comdr. Steven W. Callaway replaced Lt. Comdr. Richard L. Burke in command. Comdr. Burke is now in command of the New Coast Guard station at New Elizabeth, N. C. The Coast Guard will retain a 22-man force at the Cape May station.

## De Seversky Sues Republic Aviation

Two lawsuits with aggregate claims of \$22,497,069 were filed, Aug. 21, against Republic Aviation Corp., Farmingdale, N. Y., its president, W. Wallace Kellett, and its directors, by Maj. Alexander P. de Seversky, founder of the company.

One suit is for \$2,497,069 claimed due for work performed and expenses incurred, entered against the corporation in Federal District Court, the other being filed in State Supreme Court on behalf of stockholders to recover \$20,000,000 damages for the corporation from Kellett, Paul Moore, Livingston Platt, Horace N. Taylor, John J. Daly, Joseph W. Powell and Joseph L. McClane, all directors, on alleged mismanagement and fraud.

Suggesting that other suits are contemplated, Eugene L. Garey, counsel for Seversky, in comment on the litigation, declared: "The present stockholders action is the first move to bring Moore, Kellett and their current associates on the board of directors before the courts to answer for their activities in keeping out of the company the man who with a handful of collaborators built the corporation from an airplane blueprint to a manufacturing enterprise employing 2,000 persons. The lawsuits involve not only the question of recovering for Seversky the amounts claimed due him, but represent an effort to preserve for the nation an important unit for the production of military pursuit aircraft."

The stockholders suit charges that the Seversky ousting in May 1939 has hampered procurement programs of the U. S. military services and of Allied countries alike, that in the last 15 months, "not a single Seversky plane has been built for Allied order." Suit specifies that the \$10,000,000 Swedish order negotiated by Seversky during his European tour, Nov. 1938-July 1939, saved the company from financial ruin and that he suddenly was recalled when on the point of concluding large contracts, thus depriving company of sales estimated at \$50,000,000-\$60,000,000.

Seversky also contends that Kellett illegally demanded 50,000 shares of stock as bonus for his services, and that he did in fact obtain stockholders' approval for option on 25,000 shares by "fraudulently concealing from stockholders all the facts connected with such action."

## 'ILL-TIMED' PLAN Col. Roger Q. Williams Feels Public Is Not Ready for Auto- Plane Units

Manufacture of combination automobile-airplane units as announced recently is ill-timed, in the opinion of Col. Roger Q. Williams, president of Williams Aircraft Corp.

Commenting on the announcement that such a device soon would be manufactured and offered to the public, Williams said:

"This has been a cherished dream of many a serious designer for many years. Attempts to crystallize the idea have been made by Bill Stout with his air-car, Pitcairn with the folding-wing autogiro, Waldo Waterman with his Studebaker tail-less auto-plane, and now, George Cornelius with his air-car.

"Over the period 1935-1937, the Williams 'Aerocoupe' was developed and engineered for future development. A market survey of the aircraft industry, as well as another survey covering possible public acceptance of this combination design, was made. From the surveys it was concluded that the Williams 'Aerocoupe' should be set aside until 1945. By that time, it was believed, the natural objections of the public to the mechanical difficulties would be overcome, and public acceptance readily achieved."

### New County Maps

The Public Roads Administration announces new county maps are or will be available soon from all state highway departments showing structures in rural areas, including airports, radio stations, highways, power plants, oil and gas wells, schools, hospitals, streams, highways and railroads.



## OUT OF THIN AIR . . .

IT IS one thing to build an industry upon known precedents and existing foundations; but quite another thing to start with thin air and create a new industry overnight. Yet, in a sense, that's what air transportation has done. And the reason for its success may not be attributable so much to human inventions and enterprise as to a market that was ready and waiting to go, once the industry gave it what it wanted. The public desire in the years to come will do more to shape the course of air transportation than the industry itself can do.

**AMERICAN AIRLINES Inc.**  
ROUTE OF THE FLAGSHIPS

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# 250,000 *Cyclone* HORSEPOWER for the **FLAGSHIP FLEET**

Already operating the largest commercial fleet of aircraft in the world, American Airlines is now taking delivery of additional Douglas airliners which give its exclusively Wright Cyclone-powered fleet a total of over a quarter-million horsepower. Every hour of the day and night, at least 22 Cyclone-powered Douglas Flagships are in the air flying American's 73,000 miles of scheduled daily routes.

American has logged with safety over 700,000,000 passenger-miles in the last 4 years alone behind Wright Cyclones; and will this year carry nearly a million passengers, considered a remarkable showing for the entire industry a few years ago. These figures are impressive evidence of the part played by Wright Aircraft Engines in the advancement of air commerce.

**WRIGHT AERONAUTICAL CORPORATION**  
A Division of Curtiss-Wright Corporation • PATERSON, NEW JERSEY



*FLY*  
IT PAYS TO



## WRIGHT *Aircraft* ENGINES

## Contracts Break Jam

(Continued from page 1)

announced Aug. 28 by the War Dept. They follow:

**VULTEE AIRCRAFT INC., Downey, Cal.,**  
500 trainers with spare parts

\$7,488,782.50

**BEECH AIRCRAFT CORP., Wichita, Kan.,** 150 trainers and 20 transports with spare parts

\$4,847,217.25

**RYAN AERONAUTICAL CO., San Diego, Cal.,** 200 trainers with spare parts

\$2,074,234.00

### Bell Pursuits

Following up in its program for the procurement of pursuit planes, the War Dept. on Sept. 10 made the following award:

**BELL AIRCRAFT CORP., Buffalo, N. Y.,**  
120 pursuit airplanes with spare parts

\$4,962,220.00

This award brings the total under the 1940-41 appropriations to 2,797 out of 4,247 airplanes authorized. Of the 2,797 airplanes, 963 are of the combat type.

### Navy Negotiates Further

Progress toward final negotiation of contracts for approximately 2,400 airplanes with a total value of about \$108,000,000 was reported by the Navy Dept. on Sept. 9. "Actual execution of certain contracts is subject to final decisions as to the manner, financing and amortizing plant expansion and additional facilities, and subject to the authorization, by the Secretary, of negotiated contracts," the announcement said.

"In addition, estimates of cost for aircraft, ordinance material and plant expansion were carefully calculated and contracts tentatively negotiated, giving thorough consideration to

allocations consistent with present facilities and strategic locations," it was stated.

### Terms of Agreements

In connection with the joint War-Navy engine and propeller award to the Curtiss-Wright divisions, it was said that buildings and machine tools required for expansion will be provided by the corporations at their own expense.

Formal contracts are in process of preparation and will be executed by the War Dept. and the corporations concerned. Engines which will go to the Navy will be paid for by transfer of Navy funds to the Army.

Under terms of the Navy-War-United Aircraft agreement, buildings required for expansion of the concern's program will be provided by the corporation at its expense. Machine tools required to equip the buildings will be provided under separate contract by the Navy with government funds and title to the tools will vest in the government.

Formal contracts are in process of preparation and will be executed by the Navy and United Aircraft's Pratt & Whitney Division at East Hartford, Conn. Engines delivered in the Army will be paid for by transfer of Army funds to the Navy.

## British to Get 800 U.S. Planes a Month

Great Britain is continuing negotiations for aircraft in this country with conferences being held with the Defense Commission, Army and Navy and the manufacturers. Neither the Army nor the Navy is releasing to the British any airplanes ordered for the services because of the domestic shortage.

It is understood that 800 aircraft a month will be provided the British under the revised procurement schedule, with delivery of between 12,000 and 15,000 airplanes at the end of 19 months. It is understood the British now know what they want and what they can get. The earlier estimate of William S. Knudsen, member of the Defense Commission,

## Brazilian Flight Delivery



Six of these Brazilian Army officers recently were "flying down to Rio" in North American NA-44 attack bombers. Brazil has ordered 30 of the type from North American Aviation Inc. of Inglewood, Cal., and it is probable that the entire quantity will be flown to Rio de Janeiro. The NA-44 is a two-place, low-wing monoplane powered by a Pratt & Whitney Wasp engine of 550 hp. It is closely similar to the BC-1A basic combat and command liaison type built by NA for the U. S. Army Air Corps.

The NA-44 has a cruising range of more than 1,100 miles and a top speed of 215 mph.

At the left in the picture is Oswaldo Balloussier, resident representative of the Brazilian government at North American's factory. Officers who made the recent flight are, left to right: Lt. Roberto de Faria Lima; Lt. Manoel Borges Neves, Filho; Maj. J. S. Macedo, commander of the flight; Lt. Alolito Hamerly; Lt. H. E. daFonseca, and Lt. Ricardo Nicoll.

that 1,200 planes a month could be delivered to the British is being revised downward.

No separate series of aircraft plants will be built with British financing, but it is probable that plant additions will be made for the British orders, as has already been done in some instances. Recent British orders include about 100 new Stinson 105 models and a substantial number of twin-engine Cessna T-50 planes for training.

### Canadian Aviation Awards

Contracts of over \$5,000 for aircraft supplies awarded by the Canadian Department of Munitions and Supply during the fortnight ended Aug. 31 were, according to official releases: Packard Motor Car Co., Detroit, Mich., \$2,582,067; Fleet Aircraft Ltd., Fort Erie, Ont., \$265,484; Canadian Pratt & Whitney Aircraft Co. Ltd., Longueuil, Que., \$169,973; British Aeroplane Engines Ltd., Montreal, Que., \$82,260; DeHavilland Aircraft of Canada Ltd., Toronto, Ont., \$46,440; Chrysler Corporation of Canada Ltd., Windsor, Ont., \$16,131; MacDonald Bros. Aircraft Ltd., Winnipeg, Manitoba, \$13,000; and Aviation Electric Ltd., Montreal, Que., \$6,890.

## 600-Plane Order Placed by Britain in Canada

The British government has placed a 600-plane order with Canadian Car and Foundry Co. at Ft. William, Ont., for Hurricane fighters.

It has been reported that about \$15,000,000 is involved in the contract.

Order follows fulfillment of a substantial educational order in recent months.

### Stearman Delivers

Deliveries are now being made to the Army Air Corps of PT-18 primary trainers manufactured by Stearman Aircraft Division of Boeing Airplane Co., Wichita, Kan. Stearman received a \$688,000 contract for trainers from the War Dept. on Aug. 10, 1939, with an option for \$2,000,000.

### Scherer Joins RCAF

Jack Scherer, copilot of the Gannet Newspapers' twin-engine Lockheed, has joined the Royal Canadian Air Force.

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"Special Courtesies to members of the Aviation Industry"

Enjoy the modern luxury of the Hotel Raleigh. Bright, guest rooms set a new standard for comfort. Diverting new restaurants, garage.

450 Beautiful Rooms from \$3.50

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PENN. AVE. AND 12TH ST., N.W.

WASHINGTON, D. C.

## Status of War Dept. Aircraft Orders

Data as to the number and types of military aircraft for which contracts were entered into after June 1, 1940, by the War Dept. became known on Sept. 5. The data follow:

Manufacturer	Type and Army Model Number	Quantity
Consolidated Aircraft Corp. Boeing Aircraft Co. Douglas Aircraft Co.	4-engine heavy bomber	B-24D 56
	4-engine heavy bomber	B-17E 277
	light attack bomber	A-20A 20
Lockheed Aircraft Corp.	2-engine pursuit	P-38E 410
Beech Aircraft Corp.	2-engine transport	C-45A 20
Stearman Aircraft Div. Stearman Aircraft Div. Fairchild Aircraft Div. Ryan Aeronautical Co.	primary trainer	PT-13B 75
	primary trainer	PT-17 225
	primary trainer	PT-19A 200
	primary trainer	PT-20A 100
Vultee Aircraft Inc.	basic trainer	BT-13A 500
North American Aviation Beech Aircraft Corp. Beech Aircraft Corp. Cessna Aircraft Co.	advanced trainer	AT-6A 637
	advanced trainer	AT-7A 150
	advanced trainer	AT-7 67
	advanced trainer	AT-8 33
Stinson Aircraft Div.	observation	105 6
Platt-LePage Aircraft Corp.	autogiro	XR-1 1
		353 bombers
		410 pursuits
		20 transports
		600 primary trainers
		500 basic trainers
		887 advanced trainers
		6 observation
		1 autogiro

Total... 2,777  
(Editor's note: The following contracts were announced as let or cleared recently: Consolidated, \$14,861,342; Boeing, \$49,935; Lockheed, \$30,278,787; Beech, \$3,410,746 and \$4,847,217; North American, \$11,335,631; Cessna, \$900,378; Ryan, \$2,074,234; Platt-LePage, \$203,375; Vultee, 7,488,782; Stearman, 2,041,947.)

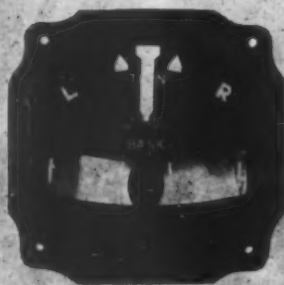
*The quickened tempo of  
national preparedness  
gives*

## NEW VIGOR *to the wings of* **AIR COMMERCE**

As America swings into the greatest military and naval aircraft program ever conceived, we who share the inspiring job, are acutely aware of its sure effect on Air Commerce. With the whole nation turning its attention to the skies, air travel must grow faster than ever. And with redoubled engineering and research activity, the excellence of aircraft equipment must advance in unison. Pioneer, pledging its continued utmost cooperation with the programs of military and mercantile aviation alike, pledges too, the finest aircraft instruments in Pioneer history.

### PIONEER INSTRUMENT

Division of Bendix Aviation Corporation  
BENDIX, NEW JERSEY, U. S. A.



Pioneer Turn and Bank Indicator



*Pioneer*  
**INSTRUMENTS**

## 14 Canadian Types in Production

Types of aircraft in production in Canada as of Aug. 1940 have been listed by Commercial Aviation as follows:

AVRO ANSON twin-engine bomber-trainer  
BLACKBURN SHARK III (2-3 place) torpedo bomber  
BRISTOL BOLINGBROKE long-range, high-speed bomber  
CUB tandem trainer (by Cub Aircraft of Canada, Ltd.)  
DE HAVILLAND TIGER MOYH (2 place) trainer  
FLEET FINCH primary trainer  
FLEET 60 low-wing advanced trainer  
HANDLEY-PAGE HAMPDEN bomber  
HARLOW model PC-5 tandem trainer (by Cub Aircraft of Canada Ltd.)  
HAWKER HURRICANE (1 place) fighter  
NOORDUYN NORSEMAN  
NORTH AMERICAN NA-66 advanced combat trainer (by Noorduyn Aircraft Ltd.)  
SUPERMARINE STRANRAER flying boat  
WESTLAND LYSANDER II Army cooperation monoplane

## British Continue Purchases of Used Planes; 50 Sold in L A

Recent sales of 50 used airplanes to the British and Canadian air forces were reported late in August by Los Angeles airplane brokers. Superior Oil Co. and Inter-Continent Corp. both have sold their Lockheed 14's to the British Purchasing Commission to be converted into bombers.

The British are continuing to buy every big plane they can find which can be converted into military aircraft, while the Canadians are buying all sizes of ships for training purposes.

No estimate of the money spent in Los Angeles for used planes could be obtained, but some idea of the thousands of dollars involved is given by the statement that the used Lockheeds were sold at prices ranging from \$90,000 upwards.

## Wellsville Votes Port

The taxpayers of Wellsville, N. Y., have voted to purchase a 106-acre farm for \$12,000 to be used as a municipal airport site. The field was approved by the CAA as suitable for pilot training.

## Lockheed's Engineers Offered 8-Week Course

Inauguration of an engineering training program, which eventually will include most of the company's 1,000 members of the engineering department in a series of eight-week courses, has been announced by Hall L. Hibbard, chief engineer of Lockheed Aircraft Corp.



Hibbard

The program is in addition to the Lockheed-California Institute of Technology arrangement explained in AMERICAN AVIATION, AUG. 1.

Six classes are held daily on company time with a curriculum including aerodynamics, descriptive geometry, mechanism, hydraulics, materials and processes, sheet metal fabrication, assembly methods and stress analysis.

The courses are being presented by Prof. Arthur Gehrig of Pasadena Junior College, Prof. Frank J. McCormick of Kansas State College and P. F. Mosley, G. E. Irving, G. W. Papen, Franklin Naylor, Howard Sipple and E. H. Brooks of the Burbank firm's engineering department.

"The purpose of the training program is to provide a scientific approach to the advancement of personnel, to give each man an opportunity to increase his knowledge of the peculiar problems and methods of aeronautical engineering and to give true ability a chance for just reward whether or not the individual was graduated from a major engineering university or acquired his knowledge through self-training," Hibbard declared.

## Airport Bill Being Studied

The \$750,000,000 airport bill being drafted by the CAA, the Army and the Navy, is now being studied by the Bureau of the Budget and the White House. It is possible that the figure will be trimmed down from its present level before the bill is introduced in Congress. As currently drafted the bill will not permit the use of federal funds for buildings (including hangars) but funds can be used for the purchase of two-way radio control tower equipment since this is a federal airway aid. Progress of the bill has not been as rapid as had been expected but the chances of passage during the present session of Congress are still considered good unless unforeseen obstacles arise.

## Late Bulletin

"New candidates for the CAA's new Civilian Pilot Training Program will be asked to pledge themselves to enter the military air services if qualified," Col. Donald H. Connolly, administrator, announced on Sept. 12.

"The pledge is not intended to set the time or circumstances for entering the military service, but rather to provide a statement of intention to use this particular training in the national defense," the announcement said.

## Nearing Completion



An artist's conception of the new low-wing, all-metal Curtiss XSB2C-1 dive-bomber which Curtiss-Wright Corp. on Aug. 28 revealed it has developed with the U. S. Navy and which it is now completing in its Buffalo, N. Y., factory for early delivery to the Naval Trial Board for flight tests. The new plane is powered by a 1,700-hp. Wright double-row Cyclone 14-cylinder engine, and has "heavy fire power, increased bomb carrying capacity and general high performance." No details of its construction or performance are available.

Previous dive-bombers designed and produced by C-W include the Curtiss SBC-3 and SBC-4 types now in wide use by the U. S. Navy, and the series of Curtiss Helldiver types.

## Aerial Photo School in L. A.

Academy of Aerial Photography Inc. has been established at 3638 Beverly Blvd., Los Angeles, the Los Angeles Chamber of Commerce announces. Kenneth A. Smith, director, claims the school is the only one of its kind. Eleven courses are now offered.

## New Allison Engine Scheduled for 1941; Kroeger Manages Plant

A new model engine scheduled for production in 1941 is being completed by Allison Engineering Co. It was revealed in Indianapolis recently by a company executive. New model is said to be superior in performance to the present engine, although in appearance both the present and 1941 engines are the same.

It was also learned that Fred C. Kroeger recently assumed management of the Allison plant. O. T. Kreusser, former manager, now is head of the General Motors division's engineering work. Kreusser also is directing a program to train mechanics at the plant. Production schedules at Allison are said to have been doubled.

## United Aircraft Plants Train Workers on 24-hr. Schedule

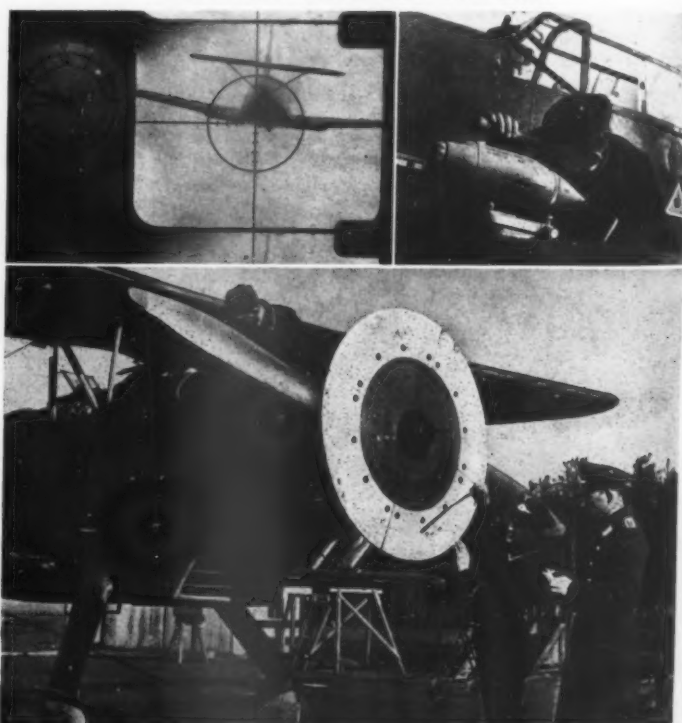
Pratt & Whitney Aircraft Division of United Aircraft Corp., at East Hartford, Conn., is training some 200 production workers monthly in a program to turn out "competent beginners in industry," initiated Aug. 12 by the Connecticut employment commission. The aircraft engine company, supplying machine tools and 42 instructors from its factory, aims to employ the newly trained workers at its plant now increasing production for national defense.

Enrollment in the 320-hour course is 360, with 120 students in each of three eight-hour shifts scheduled over a six-day week. A similar but smaller program is operating at Bridgeport State Trade School on a 24-hour basis with 12 instructors from United's Vought-Sikorsky Aircraft Division.

## Gold Shipment Stolen

Fifty thousand dollars in gold consigned from Cayenne, French Guiana, to a U. S. bank was stolen from the mail room of Pan American Airways' base at Port-of-Spain, Trinidad, on Aug. 28.

## How the Germans Trained



Extensive use of photography synchronized with machine gun operations is reported from Germany. Moving pictures are taken as the guns are fired to show without a shadow of doubt the marksmanship of the gunner. Later the movies are shown in classrooms. Upper left photo shows the moving picture negative with camera trained on the target, the movie also showing a timing apparatus and the name of the gunner. Top left shows the machine-gun camera. In some instances the camera was used alone, substituting for actual gunning operations. Lower photo shows another training phase—measuring the speed of the machine gun. The plate is placed in front of a barrel through which the shots pass. Measurements ascertain whether the shots injure the propellant.



## NEXT-DOOR NEIGHBORS

Newly increased Douglas schedules are making a community of the mid-Eastern cities served by PCA.

*Fly*  
**PENNSYLVANIA  
CENTRAL  
AIRLINES**



# The Birdmen's Perch

For several years now, we've been printing a trick math problem in each issue of the Perch. Some have been sent in by contribs whose names we wish we could print in gold. Most of 'em we've had to dig up ourselves—an increasingly tough chore. If you know a sticker, please shoot it at us. If we can use it, we'll print your name . . . in boldface, black type, anyway.

Major Al Williams, alias "Tattered Wing-Tips," Mgr., Gulf Aviation Products, Gulf Building, Pittsburgh, Pa.

## NEW BUSINESS DEPT.

Not long ago, we saw a whole collection of Navy Aircraft Insignia. At least half of which—though we've seen them a hundred times—drew a smile from us for their cleverness.

Come to think of it, there are some pretty fine private plane insignia, too. Some of which might be interesting enough to reproduce in the Perch. If you know of any . . . or have any ideas, send them along with permission to print. Doesn't make any difference how rough your drawing is, our artist will take off the jagged edges.

## KEEP IT CLEAN

The gent waving the admonitory (how-zat?) finger isn't cautioning the other lad to raise the moral altitude of his jokes.

What he's doing is stressing how important it is to use an oil in your engine that *stays* clean. Yes, sir, whether you're telling jokes in mixed company or pouring oil into your engine, "keep it clean" is a pretty good rule to remember.

You see, Gulfpride follows that "keep clean" rule because it's been cleaned up *before* it goes into your engine! You know what an awful beating oil has to take in an engine. Sometimes it just can't help breaking down a bit. And every oil contains gum-and-sludge-formers that cause trouble when the oil begins to break down.



We've licked that problem to a great extent. First, because Gulfpride Oil is hard to break down. And second, because

the exclusive Alchlor process, by which Gulfpride is refined, has removed up to 20% more carbon, varnish, and sludge-formers. Gulfpride Oil starts out cleaner . . . and stays cleaner!

## FOG-BOUND



A pilot we know found himself grounded in a deserted, emergency landing field. He had with him exactly  $1\frac{4}{5}$  packs of regulation-size cigarettes.

Waiting for the weather, he not only smoked the whole initial supply but also pieced together the butts with cigarette paper, finding that he could make a complete cigarette out of every half-dozen ends.

Before the sun shone again, he'd finished 'em all. How many cigarettes did he smoke?

(Think you know the answer? We'll bet you miss it, as we did. Send your figure to T.W.T. to be checked. We'll get the official version out by return mail.)

## THIS MONTH'S WHOPPER

Dear Major:

Here's my Doctor's Thesis for the Whopper Diploma, and, if every word of it isn't true, then I'm a suck-egg liar.

Last year I'm doing a little barnstorming through the corn country, and, frankly, business didn't exactly boom. The local sports stood around my plane, starin' and spittin' tobacco juice at her, but they just weren't buying!

"C'mon, boys," I says, "this one is on me. Step right in an' experience all the thrills of flyin' like a bir-r-r-d!" After that one had sunk in for about ten minutes, a lad stepped up, bobbed his Adam's Apple at me a couple of times, and said, "Shucks, Mister, I don't care if I do."

Now there may be taller, leaner lads than my new customer, but if there are I don't know where to find them.

Well, I check to see that my tank is full of good Ol' G.A.G., an' off we start. I figure I'll give this fellow a run for his money, so after gainin' a little altitude, I try an Immelman. It was a good Immelman, understand, but somethin' wasn't just right. There was a drag to her I never experienced before with G.A.G. in the tank!

I'm gettin' a little discouraged at this point so I decide to land. I look around to see how my passenger's makin' out. Darned if he didn't have one of his long legs over the side, draggin' his size-14 foot on the ground!



Well, I take my goggles off and sigh a long sigh. "Look, brother," I says to him, "I don't want to seem inquisitive, but you been draggin' one foot on the ground?" "Yep," he answers, "I sure have, all the time we been up there. I never rid in one of these contraptions before an' I ain't takin' chances. I ain't no fule!"

An' just to think—all the time I was suspectin' that G.A.G. I should have known better!

Jim Norris

Gulf Oil Corporation and Gulf Refining Company . . . makers of



**GULF AVIATION PRODUCTS**

## CAB Safety Bureau Searches for Cause of Penn-Central Crash

Witnesses Agree on Lightning, Engine Roar, Weather; Maneuverability of DC-3's in Turbulent Air Defended

Hearings to determine the probable cause of Pennsylvania-Central Airlines' fatal accident on Aug. 31 near Lovettsville, Va., killing 25 persons, including Sen. Ernest Lundeen (F-L, Minn.) concluded in Washington during the week of Sept. 16.

The accident, the first since Mar. 26, 1939, created a stir on Capitol Hill, with Sen. Pat McCarran (D., Nev.) introducing a resolution asking for a Senate investigation.

The 25th person aboard was Donald Staire, PCA observer from Washington. The DC-3 was piloted by Lowell Scroggins, with J. P. Moore as co-pilot and Margaret Carson as hostess.

It is estimated that the plane was traveling between 250 and 300 mph. when it hit the ground. Wreckage and bodies were spread over a wide area, and Federal Bureau of Investigation agents were called in to assist with identification.

At the hearings, which were conducted by Fred Glass, safety bureau attorney, and in which CAB members Harlee Branch, Edward P. Warner, Grant Mason and George Baker participated, lay witnesses agreed on three points: (1) a streak of lightning and heavy thunder immediately preceded the crash, (2) the storm in which the plane was flying was the worst in several years, and (3) the plane's engines were making a loud roar, one witness describing it as "siren-like."

Investigators have pieced together this much of what happened: The ship flew into turbulent air, was buffeted

about and lowered by a downdraft. The pilot had throttled back as is customary, and suddenly saw the ground and gunned the motors. He could not pull out in time, however, and the plane crashed at an angle exceeding 26 degrees.

### Expert Testifies

Dan Beard, American Airlines chief engineering pilot, one of the expert witnesses called, testified that he has had considerable experience with DC-3's in turbulent air. "I regard the characteristics of DC-3's in turbulent air as good as any transport plane I have ever flown . . . I know of no characteristics which would make the plane hard to control in turbulent air," he said. He explained that he has had the automatic pilot horizon "up-set" in rough air several times.

Beard explained that in a dive, the oil might cling to the top of the oil tank, allowing air to gather at the bottom and get through to the propeller governors, changing the pitch and causing the props to turn faster than set. He said heavy rain does not affect longitudinal stability, also stating that his planes have been struck by lightning twice, but that neither he, the planes nor the instruments were affected.

A. E. Keith, American Airlines second pilot, testified that he was on a regular schedule into Washington from Chicago on the day of the accident, passing over Leesburg, near the scene, at 2:22 pm. (crash was about 2:40) at 3,000 ft., was under the clouds with the air smooth and visibility unlimited. He saw no thunderheads.

McAlphin Crowder, PCA station manager at Washington, said trip 19 was scheduled to depart at 1:50 but left the ground at 2:21, delay being due to late passengers, and because an adjustment of the oil filter was necessary. Plane's weight, he said, was 24,372 lbs. (24,546) allowed. He was informed that the ship had not reported at 3:20, immediately checked and made calls to find it. He heard of the crash at 5:00.

Edward Svat and Elvin Johnson, PCA mechanics at Washington, explained that the plane was in perfect condition when it arrived from Pittsburgh Saturday morning. Pilot Scroggins, on the afternoon trip, taxied to take-off position, checked his engines and returned to the apron, reporting low oil pressure in one motor. Johnson turned the adjustment on the oil filter 10 or 12 times, and the plane took off.

The DC-3 was purchased by PCA recently and was delivered on May 25, 1940. Its engines had operated 565 hrs., 54 min. up to the time of the crash. Approved time between engine overhauls is 600 hrs.

Prior to the accident, Penn-Central had carried 600,000 revenue passengers and had made 71,000 trips between Washington and Pittsburgh. Because of the U. S. airlines' 17 months of safety, the crash had little effect on traffic, only a few cancellations being reported.

Sen. McCarran told the Senate on Sept. 5 that he was not attempting to lay the blame on anyone prior to an investigation, but added that the records show that there was no fatal accident before the Air Safety Board was abolished and the Authority reorganized. He said that since reorganization there

## Pan Am's Cut-offs



Map shows Belém-Rio de Janeiro and Port au Prince-Maracaibo cut-offs which Pan American Airways is instituting to speed up its South American service. The Belém-Rio shortcut will save 950 miles over the coastal route. Temporary permission to operate this, pending a hearing, was received from the CAB on Aug. 30.

has been "chaos and confusion, resignation after resignation."

The CAB invited all Senate members to attend its investigation. In view of this fact, it is probable that the McCarran resolution will be allowed to lie on the table without action. It is certain that there will be no Congressional action until after the CAB completes its inquiry.

## CAB to 'Investigate' Canadian Colonial's NY-Niagara Falls Line

Stating that "there is reason to believe that the conduct of said service may be in violation" of the Civil Aeronautics Act, the CAB on Aug. 23 instituted an investigation into the intrastate operation started Aug. 11 by Canadian Colonial Airways between New York and Niagara Falls, N. Y.

At the time the company opened the passenger-property service it did not possess a certificate of convenience and necessity for the route, the CAB explained. CCA has maintained that because the service is all within the state of New York, a certificate is not necessary.

The CAB said the investigation will be "to determine whether the conduct of such service is or may be in violation of the provisions of the Civil Aeronautics Act of 1938."

No date for a hearing has been set.

## Airport Lighting Job to Westinghouse Division

Washington National Airport will be completely lighted by Westinghouse Electric & Manufacturing Co., the firm's lighting division has announced upon receipt of a contract representing \$100,000, said to be the largest amount of lighting ever installed on one port.

Included in the order is what is known as a "smoke pot" which will take the place of the conventional wind tee. Westinghouse engineers are now developing the new type of wind indicator.

Some 400 contact lights, boundary lights, obstruction, range and floodlights are included in the order.

## Imperial Airways' Permit Transferred to New British Corp.

The permit formerly held by Imperial Airways Ltd., authorizing it to engage in trans-Atlantic air service from the United Kingdom to the U. S. via Canada, Newfoundland and Ireland, or Bermuda, has been transferred by the CAB to Airways (Atlantic) Ltd., a wholly-owned subsidiary of British Overseas Airways Corp.

British Overseas Airways was formed Nov. 25, 1939, to operate all British flag services, including Imperial and British Airways. The subsidiary, Airways (Atlantic) Ltd., was organized to operate the trans-Atlantic service.

Original permit to Imperial was issued Aug. 4, 1939, in substitution for a prior permit given by the Bureau of Air Commerce in June 1936. Issuance was in accordance with the reciprocal agreement concluded in 1937 between the U. S. and Great Britain, Canada and Ireland, covering trans-Atlantic air service, and is valid for 15 years from June, 1936.

## TCA Offices Move

Trans-Canada Air Lines has moved its Montreal traffic and operating offices to Winnipeg, Man. Executive members remain in Montreal.

## Pack Opens Larger Studios

Harry S. Pack, Jr., designer of a number of airline offices, announces opening of larger studios at 71 Kercheval Ave., Grosse Pointe Farms, Mich.

## Hardin

(Continued from page 1)

expected to begin shortly after the first of the year.

Gates will study economic problems and Hardin will investigate Pan American's operations.

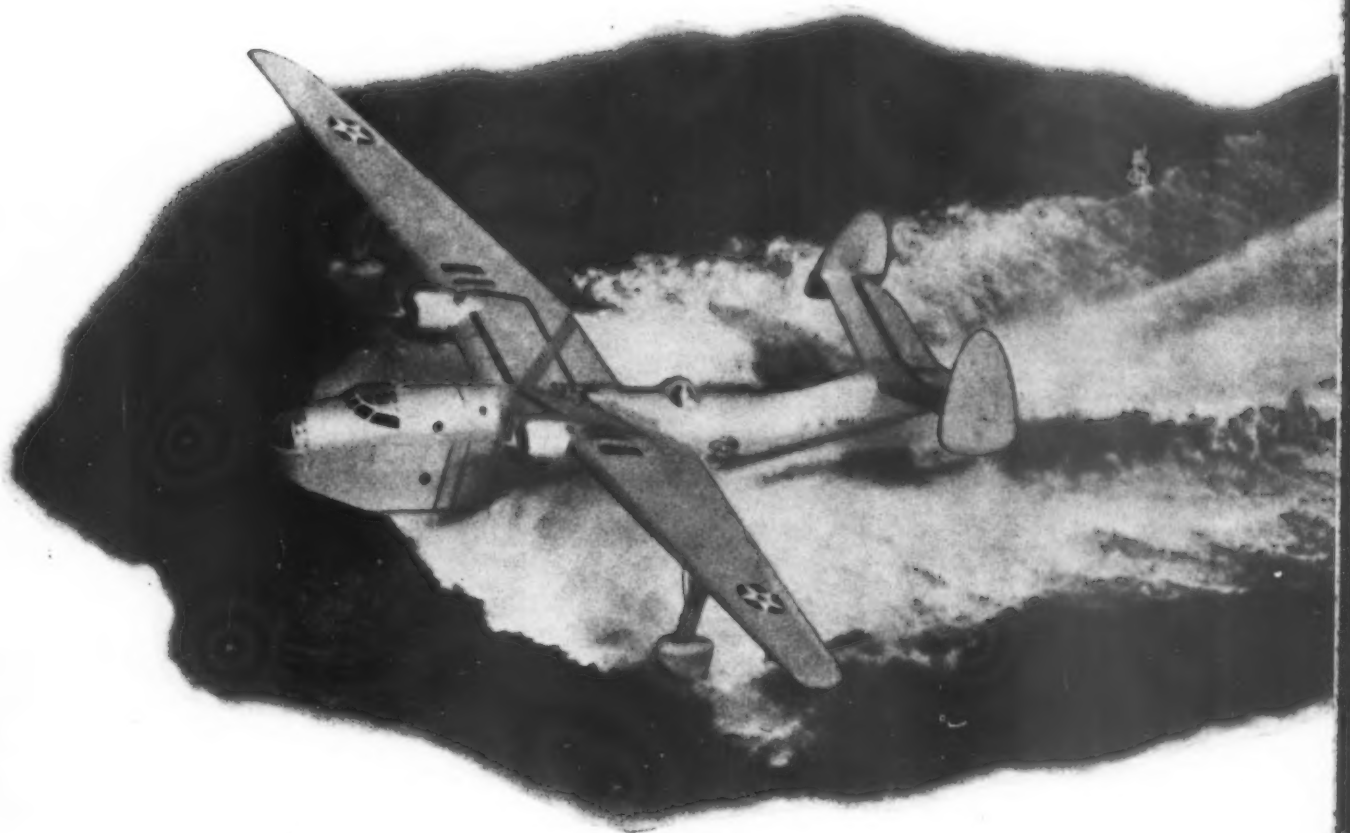


## Continental's SUPER LODESTARS Now In Service

Today, new comfort sails the skies on Continental's famous route . . . The new Continental Super-Lodestar fleet is now in service! Larger, faster, these great new ships offer spacious comfort for 14 passengers. Powered by two Pratt & Whitney Twin Row Wasp engines of 1200 H.P. each, Continental's new Super-Lodestars maintain "America's Fastest" air schedules while using only about 44% of the available power.

**CONTINENTAL**  
**AIR LINES**

*America's Fastest*



## A Battle Cruiser takes off . . .

BY LEE E. FRANK

To the Navy it was a relatively routine matter . . . a patrol plane setting off on a mission under orders.

But to me . . . it was an awe-inspiring sight . . . a powerful battle-cruiser breaking the traditional shackles of Neptune and invading a new medium of flotation in symbol of our country's sovereignty.

The giant flying boat turned . . . its motors thundered their challenge . . . the boat moved faster and faster! Gaining speed it lifted on the water . . . the whirl of foam behind it attained cyclonic proportions . . . on it sped! Suddenly the trail of white ceased . . . it was in the air!

Yes . . . in the air . . . a giant measured in many tons had left the water as smoothly and as effortlessly as if endowed by Nature with the ability to fly. It was a magnificent sight . . . and a reassuring one, too.

For within that hull were means to preserve the liberty, happiness and peace of our country and our people.

Now a speck in the sky above the horizon, the plane is on its mission . . . filling the gaps between our Naval sea forces in their defense of our far-flung neutral zones. An eagle eye of the Navy . . . with the Eagle's striking power against air and surface craft ready when the occasion demands.

In 16 hours it may be back . . . having covered in its course several thousand miles. Or it may not be back for a week or a month. It may settle in a tropical harbor . . . or under some rocky northern cliffs for the night . . . to be on its way again in the morning. It may contact some distant Naval unit . . . may operate with it for days or weeks. But regardless of its mission . . . it will accomplish it with dispatch and efficiency.

It is literally a battle-cruiser of the air . . . with complete accommodations for its crew . . . capable of operating over tremendous ranges . . . from shore or ship bases. A sailor interrupted me . . . "It's one of those new Martin PBM-1's . . . off on a run" . . . I thrilled to the occasion.

Published by

**THE GLENN L. MARTIN COMPANY**  
BALTIMORE, MARYLAND, U. S. A.

Builders of Dependable



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## CPTP Deaths Now 11

Eleven fatalities among students in the second CPTP program since June 15 have been reported, with about 75 students in hospitals from serious accidents. Many minor accidents are not being reported. Several fatalities have not been officially counted because the students were flying in ships technically not included in the program.

## Len Povey and Roy Keely Resign CAA; Budget Bureau Continues Inquiry

With more resignations of veteran CAA personnel reported because of turbulent internal friction, the Bureau of the Budget completed just prior to Labor Day its searching investigation of the agency and has launched a two months investigation of CAA field forces and conditions.

The Budget Bureau's report may never be made public unless it is called for by Congress, but it is known that it is sharply critical of the administration of Robert H. Hinckley, former CAA chairman and now assistant secretary of Commerce.

Meanwhile Len Povey, one of the best known pilots in America, who was in charge of the re-rating of all instructors last year and world-famous for his acrobatic flying, has resigned effective Oct. 1. He will join the Emory Riddle Air service in Miami.

Roy Keely, of airline inspection, also has resigned, it is learned, while a

number of resignations of veteran inspectors in the field are reported. Grove Webster, chief of the private flying division, who has been attempting to absorb the entire inspection service by one means or another, is ordering or asking other veteran inspectors to join the private flying ranks, the ordering or asking depending upon circumstances. Salaries go up or down accordingly.

The Budget Bureau has ordered stopped all pay increases and changes of classification of CPTP personnel which Webster had instituted when CAA was reorganized July 1. Most of the salaries were being moved upwards by substantial degrees.

Instead of improving, the morale of the field personnel in general inspection has gone steadily downward. Feelings have been so high in Washington that flat-fights have been narrowly avoided on several occasions.

## RFC Now Financing CPTP Secondary Trainers at 4% Interest for 1 Year

The Reconstruction Finance Corporation is financing a large number of the training planes used in the Civilian Pilot Training Program's secondary course, it has been learned. Although no announcement was made of the financing arrangements, the plan was made available to operators July 18 by Grove Webster, chief of the private flying division.

The RFC financing is at unusually low rates. The interest rate is 4% and the RFC finances 90% of the purchase price of the airplane over a period of one year. A 10% down payment must be made to the airplane company and the balance will be payable to the RFC in 10 equal monthly installments, the first payment being due 60 days after date of delivery.

This is the first time the RFC has financed airplanes on a mass scale, the only other occasion being the financing of transport planes for several airlines.

Aircraft which is financed through the RFC must be fully covered by an "all risks" form of policy, 5% deductible, which has been made avail-

able by the aviation insurance underwriters. The rate has been reduced to 15%, or \$1,125 per aircraft per year, payable in installments if the operator prefers.

The only planes that can be financed by RFC are those used in the secondary course—225 hp.

Waco Aircraft is currently building 400 planes for this course, the Waco E trainer being the only model available at the present time.

Several private companies engaged in financing of airplanes have complained about the RFC aiding the CPTP on grounds that private companies cannot compete on rates with the government agency. It is learned that the RFC financing is being used on a majority of Waco orders, thus eliminating private bank or credit company financing.

### Low Cost Insurance

#### Introduced for Pilots

Al Bennett (left), exponent of private flying in America, is shown receiving the first of a new insurance policy from Roy Barrette, executive of Parker & Co., Philadelphia, who was largely responsible for the development of the policy.

The policy, issued by Continental Casualty Co. at a premium comparable



with automobile accident insurance, covers all classes of pilots and passengers at one rate of \$20 per annum for \$3,000 principal sum and \$500 medical reimbursement, the only requirement being that the pilot and aircraft are properly certified by the CAB.

Parker & Co., in the aviation insurance business for nearly 20 years, worked with Continental Casualty Co. to "get something for the pilots of this country that they can afford to buy," according to the announcement.

### Rendezvous in Michigan



Participants in the recent National Summer Plane Cruise to Michigan included persons shown above.

In the top photo, left to right, are: Alex Janaules, Detroit; Lenora Strong, Detroit; Marion Jane "Babe" Weyant, Lansing, Mich.; Orville Sparks, Detroit, and Jim Cavis, chairman, aviation committee, Traverse City (Mich.) Chamber of Commerce.

Lower photo: Col. Harold R. Neeley (left), regional director of CAA, Chicago, and Charles E. Cox, senior private flying specialist, CAA, Chicago.

## Highest Tribute of All!

- On the floor of the United States Senate on July 25, 1940, Senator Pat McCarran of Nevada, read to the Senate the lead editorial and the lead news article from AMERICAN AVIATION and called this publication "one of the most outstanding publications on aviation in the world."
- This is indeed a recognition of which to be proud. It is one more illustration of the position and influence of the aviation industry's standard and pace-setting twice-monthly news magazine.
- Here is a photographed reproduction of this tribute as it appeared in *The Congressional Record* for that date:

... we have had ... detail. But the ... known as the Civil Aeronautics Board ... making a mockery out of sincere private ... Four members of the Board have been handicapped, it is true, by a chairman who spent his time on every conceivable activity except economic regulation. Men of intellectual honesty usually resign from positions in which they have no interest or conscientious application. The C. A. A. Chairman did not. But, even so, this would appear to be no excuse for the majority of four to keep its economic regulation apace. A million dollars is a lot of money, even if it is only a pittance to a spendthrift administration. The air-transport industry has moved forward in spite of the C. A. A. handicaps, and if the C. A. A. does not soon become a part of its responsibilities it is likely to become the object of the most painstaking investigation.

Mr. McCARRAN. Mr. President, the article just read by the Chief Clerk of the Senate comes from the magazine American Aviation, one of the most outstanding publications on aviation in the world. It comes after what was undoubtedly a careful study made by the editor of the publication, and every line in the article should be read by all who are interested in the welfare of this country.

In 1935 we attempted to take civil aviation out of the grasp of politics. We saw then that civil aviation in the world, and especially in the United States, was to become one of the greatest agencies for civilization, that it was to become one of the greatest methods of transportation this country would have. So we sought to take it out of the agencies where politics had seized hold of it, and we sought to have it put under an independent agency.

It took nearly 4 years, it took the drafting of 21 measures, it took the activity of 3 separate committees, 1 in the House of Representatives and 2 in the Senate, finally to bring forward what is known as the Civil Aeronautics Authority Act.

**AMERICAN AVIATION is first with the news. It is truly  
The Independent Voice of American Aeronautics.**

## Capital Notes

"CONSCRIPTION OF INDUSTRY" stirred up more argument on Capitol Hill than the major purpose of the compulsory military service bill: conscription of men. Political considerations, in the light of the political campaign, were responsible for this phenomenon since no member seriously believed that relationships between business and government in the fulfillment of the defense program would reach a state of antagonism requiring actual condemnation of private plants.

True, the origin of the "draft industry" movement originated in the belief that the aircraft procurement program had bogged down through profit-grabbing tendencies of big business. The generals and the admirals told the Senate Finance Committee, in hearings on the second supplemental defense appropriation, that aircraft manufacturers were finding it increasingly difficult to get subcontractors to accept orders because of Vinson-Trammell profit limitations on aircraft. Unfortunately, this indictment of subcontractors was translated in the public mind to the aviation industry as a whole.

As a result of this testimony, Committee Members Russell and Overton devised an amendment to the draft bill which would allow the government to take over any non-cooperative company under condemnation proceedings. Simultaneously, Senator Harry F. Byrd demanded a Congressional investigation of the "lag" in the airplane program—a move which was headed off, for the time at least, by a White House announcement of the complete picture. Senator Byrd had confined his figures on planes ordered to a 100-day period and had omitted all reference to trainers, hundreds of which have been ordered to train pilots prior to acquisition of combat aircraft.

After heated debate, the Senate passed the Russell-Overton amendment. But the House, which was considering its own draft bill meanwhile, substituted a different industrial conscription proposal which was lifted almost verbatim from the act of 1916. This version provides for compulsory acceptance of Army and Navy orders with stiff criminal penalties for violation and for "conscription" of plants on a rental basis, rather than condemnation and government ownership.

In spite of all the furore, including contradictory comments from the Willkie camp and other political complications, the provision is expected to have little application to the aviation industry—the one around which the proposal first revolved. For both manufacturers and government officials, among the latter Mr. Knudsen himself, anticipated smooth going as soon as the new excess profits tax and amortization legislation is on the books.

THE NEW TAX BILL clears the way for formal negotiation of contracts as a welcome aftermath of months of confused operation under various substitute procedures such as "letters of intent" and "speed-up letters" and informal agreements. With its enactment, orders for vast numbers of new planes, motors, and parts requiring extensive additions to plants and facilities can be consummated.

Suspension of the discriminatory Vinson-Trammell limit on aircraft contracts is provided—until 1945—and more equitable arrangements set up as to amortization of the cost of new production facilities necessary to handle defense business. Special treatment in the matter of excess-profits payments by the airlines is expected to be retained in the final version of the law, according to indications as this is written.

PARACHUTE MANUFACTURERS were called to Washington for the first time late last week. Invited by the Defense Commission to a conference to discuss potential parachute requirements of the Army and Navy, the small group arrived with little fore knowledge of what the services may demand. Best guess is that three or four parachutes will be required, as an average for each plane, which would expand the industry to a future production of some 200,000 if the defense program reaches the 50,000-plane high set as a goal by the President. Meanwhile, various experiments are going on in the use of new materials for parachutes in the event sources of silk and linen are curtailed or prove inadequate, among them nylon and cotton.

WEATHER AIDS to air navigation are beginning to receive more attention than ever before as a result of the tragic PCA accident. Commander Francis W. Reichelderfer, chief of the Bureau, although refusing to comment on PCA's crash pending outcome of the CAB investigation, told AMERICAN AVIATION that beyond any doubt an expansion of the weather service by addition of stations along commercial air routes would allow the Bureau to notify scheduled transports in advance of local storms such as that encountered by PCA, enabling them to keep clear of sudden centralized disturbances.

A review of Congressional action over the past two years, shows a lamentable indifference to the value of adequate weather service for the airlines. A program for addition of 64 airport weather stations and hourly weather service on 12 routes was sharply curtailed by denial of almost half of the money requested and approved by the President and the Budget Bureau for fiscal 1940. Of a \$1,605,000 increase presented to Congress, only \$1,000,000 was granted. This year a small item of \$100,000 for improving airway meteorological service was denied entirely, a similar amount for new radio sonde stations reduced to \$55,000. Last year the request for further trans-oceanic weather service was also greatly cut. Other Weather Bureau plans for aviation met the same fate.

Now as attention is focused on the problem, there appears a reasonable likelihood that future appropriations will be more liberal. This is expected to be particularly true if the PCA investigation reveals storm conditions as a major contributing cause of the accident.

FLIGHT STRIPS ALONG HIGHWAYS appear for the first time in the annual Federal-aid-highway law, which this year contains a new section authorizing the Commissioner of Public Roads to investigate, upon request by a State, the location and development of flight strips adjacent to public highways or roadside development areas for landing and takeoff of aircraft.

## CAB Awards Braniff Texas Mail Service; Parallels EAL's AM42

Parallel air mail service between Houston and Corpus Christi and Houston-San Antonio was established by the Civil Aeronautics Board on Aug. 27 when it amended Braniff Airways' certificate between those points to include the transportation of mail.

The route, to be known as AM50, parallels Eastern Air Lines' AM42. Before the CAB decision, Braniff operated the service on a passenger-express basis.

The CAB admitted that in its decision setting rates for Braniff's routes, issued Aug. 8, 1939, it had stated that the company's Houston-San Antonio, Houston-Corpus Christi operations were not justified "from the point of view of either the present or prospective requirements of commerce for air transportation." That decision is now "inapplicable and uncontrolling" in view of the manner in which traffic has increased on the routes, the Board added.

"A traffic as substantial as that which appears now to exist between Houston and San Antonio and between Houston and Corpus Christi may be viewed as requiring, in the interests of commerce, at least three schedules a day in each direction and as justifying government support of that number," the decision said. "The intervener, Eastern Air Lines, is at present operating two schedules between Houston and San Antonio and three between Houston and Corpus

Christi. Of the latter number, however, only two are utilized for the carriage of mail. The applicant in the present case holds a 'grandfather' certificate issued at the express direction of Congress. Under that certificate it is obligated to render an adequate service, an obligation which certainly could not call for the operation of less than one schedule daily in each direction.

"If then, it is recognized that three schedules daily are required in the interest of commerce, and if that number are to receive the consideration of the government in the fixing of mail rates, it would appear appropriate to the requirements of public convenience and necessity that at least that minimum of operation which the applicant would in any event be obligated to maintain under the terms of its 'grandfather' certificate should be included among the recognized schedules.

"This would appear more appropriate than that the intervener alone should be encouraged to make further extensions of its service and to add new schedules to the extent that may be necessary to meet the full requirements of commerce and the postal service.

"Any adverse effect upon intervener which can be reasonably anticipated from the operation of mail service by applicant does not appear sufficiently substantial to outweigh these considerations."

## Civilian Schools Get New Awards

Contracts to civilian schools engaged in the training of pilots and mechanics in the amount of \$10,893,248.94 were announced on Aug. 21 by the War Dept. It was stated that additional contracts are being negotiated with other schools.

The awards placed in effect the program previously announced in which pilots are to be trained at the rate of 7,000 each year and provided for more than doubling the number of mechanics trained in civilian schools. All contracts for the training of mechanics were awarded schools already under contract with the government, although the allotment of students to these schools was increased from 1,500 to 3,448.

Contracts awarded flying schools for primary flying training and instruction in the operation of airplanes, including ground instruction, were as follows:

Alabama Institute of Aeronautics Inc. Tuscaloosa, Ala.  
Allan Hancock College of Aeronautics Santa Maria, Cal.  
Cal-Aero Corp. Glendale, Cal.  
Ryan School of Aeronautics San Diego, Cal.  
Dallas Aviation School Dallas, Tex.  
Texas Aviation School Inc. Ft. Worth, Tex.  
Mississippi Institute of Aeronautics Jackson, Miss.  
Chicago School of Aeronautics Inc. Glenview, Ill.  
Lincoln Flying School Lincoln, Neb.  
Parks Air College East St. Louis, Ill.  
Spartan Aircraft Co. Tulsa, Okla.  
Missouri Institute of Aeronautics Inc. St. Joseph, Mo.  
Darr Aero Tech Inc. Albany, Ga.

Contracts awarded mechanic schools for furnishing instruction and training of airplane and engine mechanics were as follows:

Aircraft Industries Corp. Glendale, Cal.  
Casey Jones School of Aeronautics Newark, N. J.  
Roosevelt Field Inc. Mineola, N. Y.  
The Aeronautical University Inc. Chicago, Ill.  
New England Aircraft School Inc. East Boston, Mass.  
Spartan Aircraft Co. Tulsa, Okla.  
Parks Air College Inc. East St. Louis, Ill.

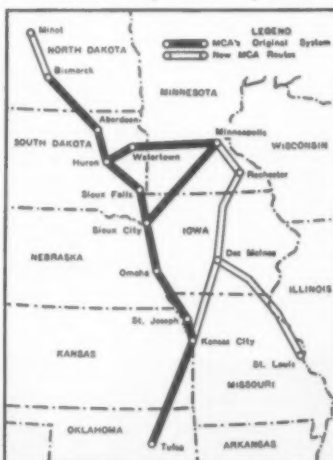
### Export Case to Court

The Civil Aeronautics Board has been informed that Pan American Airways has requested the U. S. Court of Appeals, New York City, to review the recent Board order granting American Export Airlines permission to operate a trans-Atlantic route. Pan Am was intervener at the Export hearing and protested against the issuance of a certificate. It has been denied re-hearing, reargument or reconsideration of the decision by the Board.

### New Props for PCA's Boeings

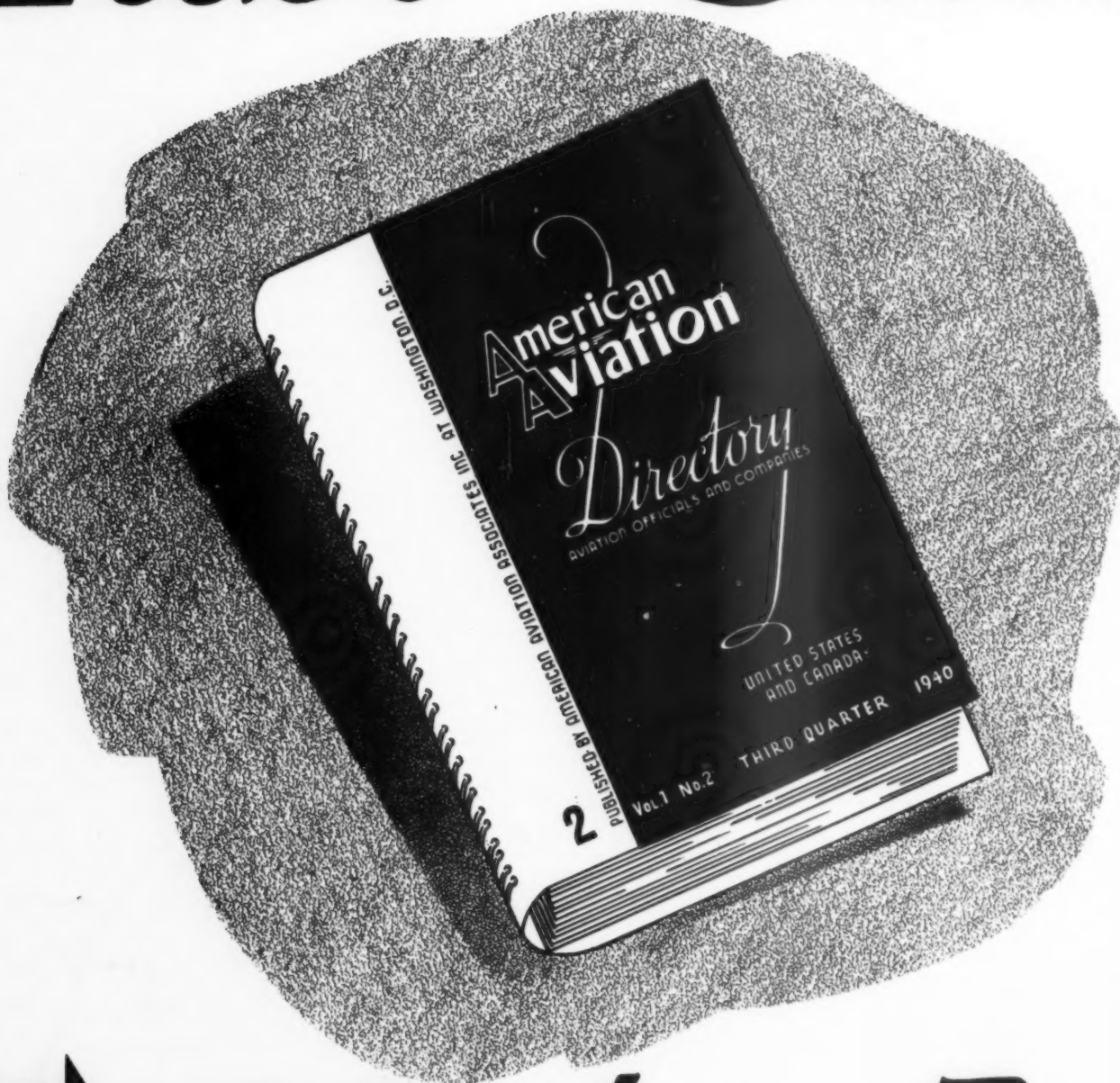
Pennsylvania-Central Airlines has installed new hydromatic full-feathering propellers on its Boeing 247-D transports at a cost of \$50,000, according to Luther Harris, vice-president of engineering & maintenance. Test flights indicate that an additional 20 mph. is gained in the single-engine cruising speed of the Boeings.

### MCA's Expanded System



With the award to Mid-Continent Airlines of new routes between Bismarck and Minot, Twin Cities and Kansas City, and Des Moines and St. Louis, the company's route mileage has been increased by more than 50%. Awards were made by the Civil Aeronautics Board in recent decisions.

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Editorial and business office, Earle Bldg., Washington, D. C. Published by American Aviation Associates, Inc.; Wayne W. Parrish, president; Albert H. Stackpole, Jr., vice-president; Edward H. Stackpole, Jr., secretary-treasurer, 104 Telegraph Bldg., Harrisburg, Pa.  
Address all correspondence to AMERICAN AVIATION, Earle Bldg., Washington, D. C.

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San Francisco  
530 West 8th St.....Los Angeles

Subscription rates — \$3.00 per year,  
15¢ per copy; Canada and Pan-American  
countries — \$3.50; all other foreign—\$4.00.

Entered as second-class matter at the  
Post Office at Washington, D. C., with  
additional entry at Harrisburg, Pa.

AMERICAN AVIATION DAILY: Published six days each week except holidays, dispatched by air mail. A confidential news letter covering daily developments in aviation and the national capital. \$15 per month, \$35 for six months, \$170 per year. Service Bureau available to all subscribers. Special telephone District 1681. Group company rates on request.

## Fortnightly Review

(Continued from page 1)

grasp its full purport or understand the distinction between the various training courses.

It is well to remember that CPTP was launched in 1939 with the primary purpose of aiding private flying. The new program launched June 15 was for the purpose of developing military pilots.

The hastily-prepared enlarged program was cockeyed from the start. A gigantic undertaking was launched without experienced personnel, without sufficient preparation, with countless deficiencies.

There was an acute shortage of planes. Operators were given quotas whether or not they wanted them. Instructors were insufficient in number. (They were appallingly scarce for training 9,000 during the first year, let alone a scarcity for training 50,000.) Regulations limiting the number of hours of flying per day per instructor (six hours) were cheerfully ignored and many instructors have been flying from dawn until after dark. Operators who weren't liked were kicked out. Training was expedited at the expense of safety.

Fatalities have mounted. Last year only one fatality was officially counted. So far since June 15 there have been eleven reported but only CPTP knows the actual number. Its records are carefully hidden from public view. There are now over 75 students in hospitals. Accidents have mounted day by day and many have never been reported. The program has clogged the airways to such a hazardous extent that every commercial and transient flyer on the airways is endangered. Airways traffic control and airport traffic congestion has reached a crisis.

In a war emergency, a pilot training program would have to be speeded. Many deficiencies would be overlooked. Today, however, there is no excuse for the rampant rush with its consequent unnecessary deaths.

IS THE justification for the \$32,000,000 increase the fact that CPTP is of military value? If so, it is a colossal boner. Inexperienced youngsters, playing with a vast sum of money and power they should never have at their command in a responsible government, are not the leaders to train the nation's military pilots.

Mr. Hinckley has emphasized the military value. Congress would never have appropriated the money otherwise. What a contradiction, therefore, to find CPTP officials assuring the students that there is no military commitment whatever, telling them to "forget all about that." There is no requirement in the students' contracts obligating them to go into the Army or Navy. Chief purpose of the program is military—but the CPTP assures the students it's purely voluntary if they want to go into the services.

What a strange contradiction, too, to have civilian officials of a civilian executive department directing a military program. The Army and the Navy make no secret—privately—of what they think of CPTP. Neither do the operators of private schools who are training Army pilots on government contracts with Army supervision. If the United States is to train military pilots, and we most assuredly need plenty of them, the

military should do the training or have it done under their direct supervision.

How long the Army and the Navy have waited for adequate funds for pilot training! And how neatly a civilian, Mr. Hinckley, walked in and stole the show! And how officially quiet the Army and Navy must remain when Mr. Hinckley, through Harry Hopkins, wields the greater power with the White House.

Students in the CAA program are neither going into the Army nor are they fitted to do so as a result of CPTP. Out of the group of 77 secondary (advanced) pilots graduated by CPTP last spring, only one is now at Randolph Field. As one able experienced school operator commented recently, "Everything the CPTP boys learned has to be untaught if they go into Army training." Despite any "official" statements made to the contrary, those who are primarily concerned with Army and Navy training know that CPTP is a stupendous waste of money and training from the military standpoint.

Some benefits to civil aviation cannot be denied but there are disadvantages here, too. By over-extending, over-expanding with such haste, the program has created overnight the greatest air traffic problem which has ever faced the government.

Meantime, Mr. Hinckley glories in releasing publicity about the 50,000 military pilots he is training. Private pilots, certainly, but the public has another understanding and so does Congress. Whether CPTP is civil or military, apparently, depends on whether you are asking Congress for money or whether you are telling the students to forget all about the military.

**B**UT this moot question is only one factor in a situation developing into a national disgrace.

The wrecking of the CAA career inspection service, the humiliation of veterans of many years experience, and the disintegration and demoralization of the entire CAA personnel by the power-mad youngsters who are guiding CPTP is one of the most shameful episodes in all aviation history.

The inspection service is the CAA's front line. It is the keystone of the government's regulation of civil aviation. It is the inspection service that safeguards the pilot by checking airworthiness of planes, who gives the flight tests, who checks airports and landing fields for safety. It is the inspection service that bore the brunt of the CPTP last year. Yet it has been wrecked within a few months with a ruthlessness approaching the incredible.

The loss of Richard S. Boutelle, chief of the bureau of safety regulation, is perhaps the most outstanding example of this ruthless exercise of power.

One by one the veterans of the inspection service are resigning—veterans who know more about flying than CPTP officials will ever know. Word comes, for example, of the resignation of Len Povey, one of America's great flyers, the man who built and trained the Cuban Air Force, the man who directed the re-rating of all instructors last year. For the government to lose a man like Povey is a lifetime disgrace for those who contributed to his resignation. Dr. E. S. Adams, chief of the medical section, resigned in disgust to go with the Army, refusing to compromise with ethics and safety. From the field come reports of resignations of able men, long in the service of the government, men who have sweated and sacrificed because they believed in what they were doing.

Bit by bit Mr. Grove Webster and his little band have endeavored to absorb the entire inspection service in order that there may be no obstacles to his complete domination of the civil aviation picture. Directing the CPTP under Mr. Webster are so-called "private flying specialists" in each region. Many of these men were rejected for jobs in general inspection as not being qualified. Even Mr. Webster's assistant, Mr. Jack Cram, was turned down for a job with general inspection.

In July Mr. Webster instituted pay increases for his private flying specialists, increasing them from \$4,600 to \$5,600. Not one of these men is eligible to give flight tests, to check aircraft airworthiness, to act on violations or enforcement of civil air regulations. Their jobs are purely promotional. Some of these men are able, some of them are our personal friends, but they are not inspectors, they are not career men, they are not charged with responsibility for safety or flight testing of pilots.

The career inspector receives \$3,200 or \$3,800 per year depending upon his term of service. Senior inspectors receive \$4,600. Raising the private flying specialists to \$5,600 has had a demoralizing effect throughout the field. Currently Mr. Webster is asking inspectors—or ordering them in the case may be—to transfer to his private flying program to work under the specialists—to work under men in some instances, that they taught to fly, or to work under men who themselves had been turned down as

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unqualified to be inspectors. If inspectors balk at the transfer, they are ordered around, humiliated, blacklisted.

The inspection service is a career service. Only time and leadership can train good inspectors. It has been difficult to keep trained men in government service. Now they are leaving—fed up, disgusted, booted around and booted out. What an example to set for new pilots now coming into aviation!

We don't believe there is a man alive who will say that the CAA inspection service is or was perfect. We ourselves have been among the critics. But destructive wrecking with dictatorial methods is disastrous to all civil aviation and dangerous to safety. It is no way to remedy evils that may have existed.

Favoritism and partiality wreck any organization, private or government. Those who let their personal feelings influence their judgment are not good executives. Mr. Webster and Mr. Cram have frequently boasted that they had to report to no one except Mr. Hinckley. During the first year's program the Administrator, who was charged with executing the CPTP program, members of the Authority who were likewise responsible, and immediate superiors of Mr. Webster, were all kept in ignorance of what was going on. Neither was the general inspection force notified. This unfortunate situation has become intensified since June 15. The ambitious drive for power has wrecked the government's front line of civil aviation.

**I**F THE TREND continues, America will face many unnecessary deaths of fledgling pilots this coming year. There are insufficient able instructors, insufficient trustworthy airplanes, and insufficient safeguards, to guarantee the efficient and safe training of 50,000 pilots with such little preparation.

The American public wants military pilots. The President promised military pilots. Mr. Hinckley promised Congress he would train military pilots. If the ratio of the spring program holds true, 1 in 77, the United States will receive from its additional \$32,000,000, a grand total of 117 pilots who will leave the CPTP secondary program by next June for further training by the Army.

Military pilots can be trained only by the military. The CPTP primary course does not make a military pilot. It does not even make him a good fledgling to begin military training. The public has been hoodwinked. Congress was misinformed. When CPTP leaped into the military arena, it launched a boondoggle outshining even the greatest achieved by WPA. The entire costly project using money much needed for other aviation purposes, with its negligible military value and its wrecking of the CAA inspection service, is indeed a shabby chapter in civil aviation.

### Men From the Ranks

**W**E DOUBT if CAA Administrator Donald Hilery Connolly would take kindly toward any suggestion we make concerning his administration of CAA. However, we have one to make which he would be wise to heed. If the demoralized CAA organization is to be pulled back into shape, the personnel must be given leaders of experience and ability it can trust. Within the ranks of the CAA are many well qualified and experienced men—men like Charles Stanton, Howard Rough and Al Koch. Colonel Connolly would do well to make one of these men his assistant, or to make all three his assistants as circumstances decide. We fear that the Colonel will fall into a common error by bringing in an outsider to fill the important job of assistant. If he is endeavoring to do a constructive job he will pick men from the ranks. That would be one means of stemming the tide of disintegration.

### Aero Bookshelf

**AIRPOWER**, by Al Williams; Coward-McCann Inc., 2 W. 45th St., New York, N. Y.; 432 pp.; \$3.50.

It is not easy to review a book as important as this in such a brief space. It is deserving of far greater treatment. Al Williams has made a major contribution to aviation's bookshelf with this dynamic, provocative, straight-from-the-shoulder treatise on air power. The layman will find it powerfully convincing. Those in aviation will find much to disagree with and to argue about. Those who believe *Airpower* is the "same old stuff" had better think again.

Day by day, week by week, Al Williams has been far more right than wrong. There are many who believe his total condemnation of the importance of sea power is too extreme, but the chances of his being right far

out-rank the chances of being wrong.

Al pleads for a department of national defense and he would appear to be on firm ground. Air power is revolutionizing war, conquest, political economy and international relations and there is no reason to doubt, in the face of actual events, that air power is, very definitely, the dominant offensive, defensive and holding force in warfare.

When Al discusses politics, history and economy, he treads on unfamiliar ground. But this is a slight fault in an invigorating book which needs to be read by many well-known people in Washington. It is a notable piece of work, the product of a free mind in a free country. W. W. P.

#### Lycoming Catalog Ready

A new catalog embracing all Lycoming 50, 65 and 75-hp lightplane engines has been announced as ready for distribution by Lycoming Division of Aviation Manufacturing Corp., Williamsport, Pa.



### Folks Worth Meeting—

**W**HEN J. A. Herlihy was graduated from Massachusetts Institute of Technology he was quite definitely decided on the field he would enter—aviation.

In 1924 he entered the ground school of the Naval Air Service and by the following year had qualified for his rating of naval aviator. He received a commission as ensign in the Naval Reserve, and during 1927 was assigned to a year of active duty with the Navy's Battle Fleet. During midwinter maneuvers of the fleet, Herlihy flew Boeing Wasp-powered fighting planes



Herlihy

with squadrons attached to the Battle Fleet.

He left the Navy and entered commercial aviation in 1928. Two years later he secured a position on the pilot staff of United Air Lines, flying various sections of the company's routes. Four years were spent on the Cleveland-New York route, and in 1934 he was appointed Cleveland station manager. The same year he became division superintendent at Cleveland, and in Oct. 1936 he was promoted to the position of division superintendent at Chicago.

In Sept. 1937 Herlihy was appointed director of engineering for United in Chicago and a year later became United's vice-president of operations. On Apr. 29, 1940, United's board of directors elected him to his present position, executive vice-president in charge of operations.

### Bits in the News

(Continued from page 4)

Finland, **FLIGHT**, British weekly, undertakes an evaluation of the craft under the heading, "An Aeroplane With a 'Background.'" Commenting on the shipboard deck-landing fighter, the weekly says "pilots have nicknamed the Brewster the 'Peau-nick Special,' or the 'Flying Barrel.' The undercarriage is unusual but very sturdy and accounts for the fuselage shape." In addition to the 54 formerly intended for Finland, the Fleet Air Arm is expected to get F2A's as the result of a Belgian order and a more recent British order.

A HINT that protective floodlight may soon become a condition of contract for industries accepting national defense orders is made by Benjamin Electric Mfg. Co. of Des Plaines, Ill., in an article on floodlighting for protection against sabotage.

**MAKING KNOWN** the major facilities available in the midwest for the production of materials for national defense was the purpose of the Midwest Defense Conference which convened in Kansas City Aug. 30. Sponsored by the KC Chamber of Commerce, the conference announced that "the midwest does not seek to be an industrial center—a resourceful people ask only that their resources be utilized to the best advantage." Delegates represented North and South Dakota, Nebraska, Kansas, Oklahoma, Arkansas, Missouri, Iowa and Minnesota.

### Brig. Gen. Kilner Takes Life; Was Vice President of NAA

Brig. Gen. Walter G. "Mike" Kilner, World War hero and former assistant chief of the Army Air Corps, took his own life Aug. 30 in the Washington, D. C. apartment of Col. G. deFreest Larner, general manager of the National Aeronautic Association.

Since retirement from the Army because of physical disability Gen. Kilner had been subject to frequent spells of deep depression. He was vice president of the NAA, consultant to Curtiss Aeroplane Division of Curtiss-Wright Corp., and was a director of Pan American Airways. For a time he was a member of the NACA, succeeding Col. Charles A. Lindbergh and resigning when he became associated with Curtiss-Wright.

He was a pioneer Army flyer, serving with the punitive expedition into Mexico with the First Aero Squadron in 1916. During the World War he built up and commanded the Third Aviation Instruction Center at Issoudon, France, where most American pilots trained. He received the decorations of three countries—the D.S.M. of the U.S., the Order of St. Michael and St. George of Britain, and appointment as an officer in the French Legion of Honor. Interment was in Arlington National Cemetery, Sept. 3, with full military honors.

#### Cleveland Dedicates Base

Cleveland's new seaplane base at the foot of East 9th St. was dedicated Sept. 1. Flight tests for CAA students and civilian pilots were demonstrated.

#### Pine Bluff Votes Airport

Voters of Pine Bluff, Ark., in mid-August approved \$200,000 in bonds to provide for a municipal airport.

## AIR CARRIER RECORD

(C. A. B. Applications, Hearings, Dockets)

### CAB Reaffirms United-WAE Merger Denial

The CAB has reaffirmed its order denying United Air Lines permission to merge with or purchase the assets of Western Air Express. United appeared in reargument before the Board on July 30.

### NY & Bermudian Hearing Postponed

New York & Bermudian Air Line's hearing for a New York-Bermuda route has been postponed to a date to be assigned.

### UMCA Proposed Report

The application of Uraba, Medellin & Central Airways for certificates of convenience and necessity between Cristobal, C. Z., and Medellin, Colombia, and from Cristobal to Turbo via Balboa should be denied, but the transfer to the applicant of the existing certificate issued to Pan American Airways for the latter points should be approved, according to a proposed report issued Aug. 20 by CAB Examiner Frank Law.

"Necessity for two such certificates does not exist," Law explained, recommending further that a passenger-property certificate extending the route from Turbo to Medellin be issued, but that request for mail carriage be denied. The company should not be granted a "grandfather" certificate, Law stated, since it was not a U. S. citizen during the "grandfather" period.

### Panagra Amendment Asked

Pan American-Grace Airways has filed a petition with the CAB for amendment of certificate authorizing transportation of persons-property-mail between Cristobal and Buenos Aires via certain intermediate points, so as (1) to include therein authority to continue persons-property-mail service to Quito, Ecuador; (2) to authorize abandonment of Villavieja, Bolivia; Tumaco, Colombia, and Jujuy, Argentina, as intermediate stops, and of Trujillo, Peru, as a regular stop and to permit passenger-property service to Trujillo on a non-scheduled basis; (3) to authorize mail service to Chiclayo, Peru, and (4) to eliminate the restriction on mail service to Arica, Chile.

### Great Falls-Lethbridge Oral Argument

Oral argument was heard Sept. 5 on the advisory report, issued Feb. 29 by Examiners C. Edward Leasure and Thomas L. Wrenn, recommending that applications of Western Air Express and Inland Air Lines for proposed service between Great Falls, Mont., and Lethbridge, Alberta, Canada, be denied. Leslie Craven, WAE counsel, told CAB members Edward P. Warner, G. Grant Mason Jr., and George Baker Jr., that the examiners had relied for their opinion too much on statistical data attempting to show public need, rather than on value of the operation as a business proposition. Insisting that there is no accurate means of predicting probable traffic, Craven declared that the 170-mile route would "pay from the start," ground transportation between the points being "grotesquely inadequate."

WAE, he said, is interested in the extension particularly because of the long-haul passengers it could transport from Canada over its system. Craven accused Inland of being "interested not in operating but in selling routes," a "speculator" with primary aim of "milking property," and he quoted Inland's sale of AM-17, Cheyenne-Denver, to United Air Lines as an example of such speculation.

In reply, Stanley G. Wallbank, Inland counsel, denied that the company has speculated with routes and asserted that AM-17 was sold in the public interest to give United entrance into Denver. Wallbank and William I. Denning, other Inland counsel, argued that Inland should receive the route since predominant traffic flow from Great Falls is to the southeast rather than southwest along WAE's system. Attorneys for both parties urged establishment of the route for national defense, to provide an interior airway toward Alaska.

### Braniff Gets Mail on Texas Route

The CAB has issued an order granting Braniff Airways permission to carry mail between Houston-Corpus Christi, Houston-San Antonio, paralleling Eastern Air Line's AM42. Complete story on page 17.

### AA Asks Intervention in 9 Cases

American Airlines on Sept. 6 asked the CAB for permission to intervene in the following cases: (1) Eastern Air Lines' application for St. Louis-Evansville-Louisville-Washington, (2) Chicago & Southern's application for St. Louis-Evansville-Cincinnati-Dayton-Toledo-Detroit (with a non-stop St. Louis-Cincinnati operation), (3) TWA's application for inclusion of Joplin, Tulsa, Oklahoma City, Phoenix, El Centro and San Diego as additional intermediate points on AM2, (4) TWA's application for Pittsburgh-Williamsport-Binghamton-Albany-Springfield-Boston, (5) TWA's application for New York-New Haven-Worcester-Boston, (6) United Air Lines for Washington-Toledo and Boston-Hartford-Cleveland, and (7) Boston-Maine's applications for Boston-New York and Portland-New York.

### Bangor-Moncton Recommended for B-M

CAB Examiner Frank McIntyre has recommended that Boston-Maine Airways be permitted to extend AM27 from Bangor to Moncton. Complete story on page 24.

### Dixie, Delta Recommended

Award of a Pittsburgh-Birmingham route to Dixie Airlines and an Augusta-Savannah extension to Delta Air Corp. were recommended Sept. 7 by CAB Examiners Francis Brown and Thomas Wrenn. Complete story on this page.

### UAL Schedules, Rates Revised

The CAB has revised United Air Lines' air mail schedules and rates. Complete story on page 24.

### Board to Investigate Canadian Colonial

The CAB has instituted an investigation to determine whether Canadian Colonial Airways intrastate New York-Niagara Falls operation, started without a certificate, is in violation of the Act. Complete story on page 14.

### TWA Wants New Stops

TWA has asked the CAB for inclusion of South Bend, Ind., as an intermediate stop on AM36, and Terre Haute, Ind., on AM2.

### Imperial's Permit Transferred

Imperial Airways' trans-Atlantic permit has been transferred to Airways (Atlantic) Ltd., subsidiary of British Overseas Airways. Complete story on page 14.

### Northwest Seeks Route

Northwest Airlines has filed application for a Chicago-Twin Cities route, with various intermediate stops. Complete story on page 25.

### TWA Asks St. Louis-Washington

TWA has filed application for a route from St. Louis to Washington with a branch to Dayton. Complete story on page 25.

## CAB Hearings, Arguments and Conferences

Sept. 16—TWA, inclusion of Reading, Pa., on AM2. Carlton Hotel.  
Sept. 19—Braniff Airways, Chicago & Southern, Eastern, oral argument on applications for Houston-Memphis-Louisville routes. Room 5044, Commerce Dept.  
Sept. 20—Continental Air Lines, Braniff, Essair, A. J. Burke and TWA, pre-hearing conference on applications for service to Texas points. Inter-Ocean Bldg., 5th Floor.  
Sept. 23—Continental Air Lines, Braniff, United and TWA, pre-hearing conference on applications for Kansas City-Denver route. Inter-Ocean Bldg., 5th Floor.  
Sept. 23—Canadian Colonial Airways Ltd., on application for foreign air carrier permit from Montreal to New York. Carlton Hotel.  
Sept. 25—United Air Lines, inclusion of Camden, N. J., as an air mail stop on AM1. Carlton Hotel.  
Sept. 26—United Air Lines, Pennsylvania-Central, for inclusion of Youngstown, O., on AM1 and 14, respectively. Willard Hotel.  
Sept. 30—Oregon Airways, United, Nick Bez and Wallace Air Service, for additional service to Oregon points. Carlton Hotel.  
Sept. 30—Pan American-Grace Airways, amendment of certificates for Canal Zone and Argentina and various intermediate points. Mayflower Hotel.  
Oct. 7—American Airlines, rate hearing. Willard Hotel.  
Oct. 14—Eastern Air Lines, Braniff, pre-hearing conference on applications for Kansas City-Washington route. Inter-Ocean Bldg., 5th Floor.

## Pittsburgh-Birmingham Proposed for Dixie; Delta Extension Favored

Award of a route between Pittsburgh and Birmingham via Wheeling, Charleston, Bristol, Knoxville and Chattanooga to Dixie Airlines, a new company, was recommended on Sept. 7 in a proposed report issued by CAB Examiners Francis W. Brown and Thomas L. Wrenn.

The examiners also recommended that Delta Air Corp. be granted an extension of its AM24 from Augusta to Savannah.

They further said that: (1) an Atlanta-Knoxville-Lexington-Cincinnati route is not required and that Delta's application should be denied, (2) New Orleans-Meridian-Birmingham-Chattanooga-Knoxville-Lexington-Cincinnati is not required and Delta's application should be denied, (3) Atlanta-Knoxville-Pittsburgh is not required and all applications should be denied, (4) Savannah-Brunswick is not required, and all applications should be denied, (5) Atlanta-Cincinnati, Atlanta-Memphis, Atlanta-Pensacola, Atlanta-Savannah not required, and Southern Air Lines' applications should be denied, and (6) amendment of Eastern Air Lines' AM5 certificate to include a stop at Birmingham is not required and should be denied.

Pennsylvania-Central Airlines was seeking a route substantially the same as that recommended for Dixie, and was also asking an Atlanta-Savannah operation.

Kenneth Frank is president of Dixie, which includes among its stockholders L. W. "Chip" Robert Jr., member of the Democratic National Committee.

The 90-page report stated that existing transportation facilities between Pittsburgh and Birmingham are slow and inadequate, and this together with a consideration of the intermediate points which will be afforded air transportation, were the main reasons that the examiners found the route in the public interest.

### Selection Explained

In selecting a carrier, and choosing Dixie over Penn-Central, the examiners stated: "The adoption of a policy which would result in reserving solely for existing airlines the privilege of providing all additions to the present air transportation system would not be consistent with a sound development of air transportation."

"In a young industry it is particularly desirable that the widest latitude be permitted for development and improvement. As such it is desirable that new capital be encouraged to enter the air transport field, and that every opportunity be extended for the exercise of initiative, and the development of new ideas in the industry. It would appear that this end could be furthered by the grant of authority to a new air carrier to enter the air transportation field."

"A study of the domestic airways map fails to disclose a more favorable situation for the inauguration of new service by a new organization. The route found to be required . . . will serve a territory in which comparatively little competition from existing carriers will be encountered. It connects important industrial communities which will provide the major portion of the traffic for the operation and will serve a number of intermediate points of

considerable importance from a traffic standpoint. Thus, the new operator would be in position to develop, without a heavy burden of competition, the traffic potentials of the route."

The record did not indicate that PCA needs additional mileage to insure its ability to continue to provide adequate service over its present system, the examiners said. "On the other hand," they added, "it clearly appears that the operation of this route by Dixie would have no detrimental effect on Pennsylvania-Central, but would act as a source of additional traffic for its system."

### Small Savings Noted

Concerning the Atlanta-Cincinnati and New Orleans-Birmingham-Cincinnati routes requested by Delta, the examiners said such routes "are a duplication of existing service, would afford small savings in mileage, and . . . the present service is not inadequate. Based upon the foregoing, it is concluded that the benefits which would accrue from the proposed operation do not outweigh the expenditure of funds necessary as mail pay and for air navigation aids, and that the public convenience and necessity do not require these proposed routes."

Atlanta-Knoxville-Pittsburgh, however, would compete directly with the connecting service now provided by Eastern and Penn-Central, the report said.

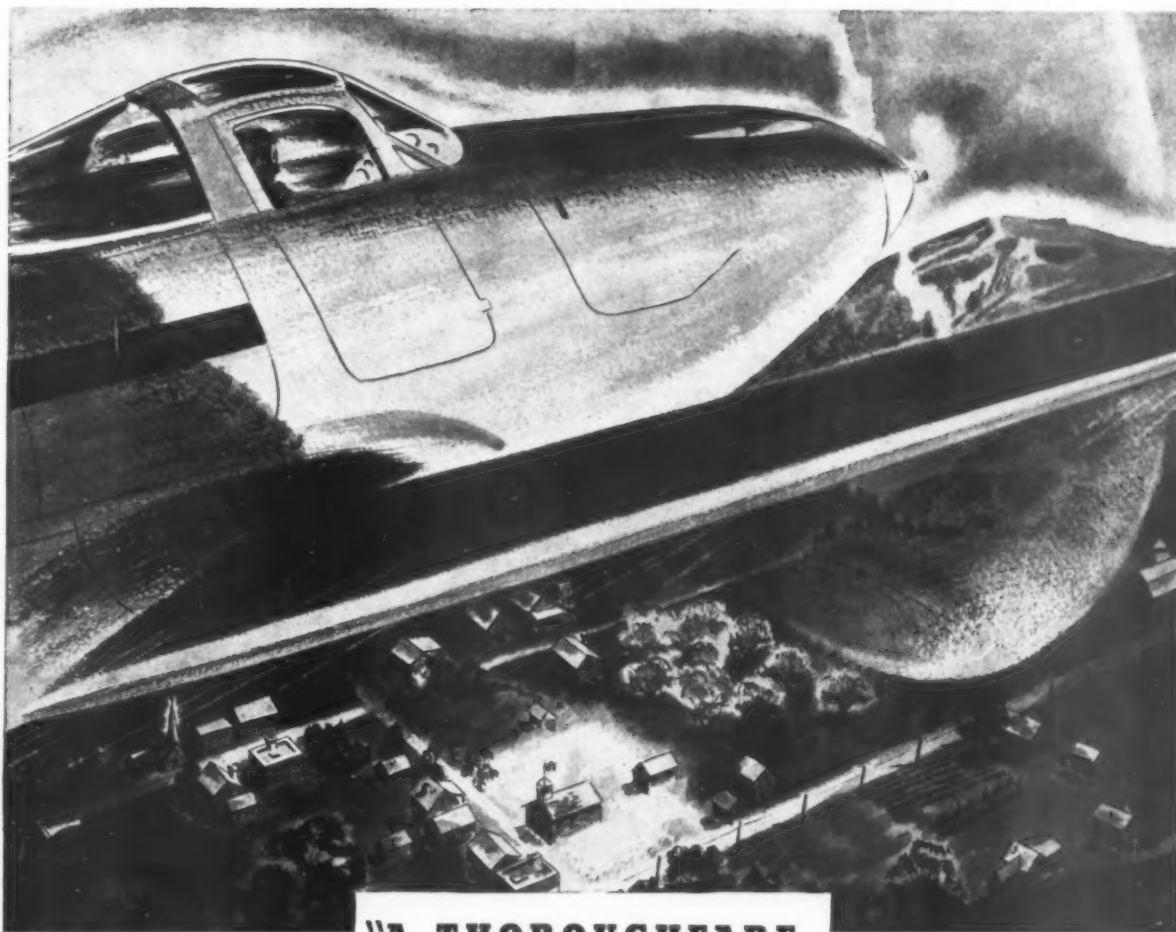
In recommending Delta to operate Augusta-Savannah rather than Penn-Central to fly Atlanta-Savannah, the examiners pointed out that the former would involve only 113 new miles against the latter's 229. "It is apparent that the proposed route of Delta will require less new mileage, less cost to the government and at the same time result in greater benefits by reason of serving a greater population," they said.

Southern Air Lines' four applications were not recommended because they either are not required by traffic needs or because the service is being furnished by existing carriers.

Eastern's application for a Birmingham stop was denied by the examiners because the company would parallel Delta between Atlanta and Birmingham. They said that "the advantages which would accrue to the public from the inauguration of a through service via Birmingham would be outweighed by the disadvantages which would result from the adverse effect upon Delta of the authorization of a duplicating service between two of its most important sources of traffic involving the heaviest traveled portion of its line and which would subject it to a loss of not less than 8% of its passenger revenue."

### CAB-Canadian Conference

An official delegation of the Civil Aeronautics Board, including Counsel Ryan and Edward P. Warner, CAB members, and Sam Gates, international consultant, conferred with Canadian officials in Ottawa Sept. 9 in another meeting designed to work out air routes between the two countries. It is expected that decisions will be made shortly on a number of pending applications for air routes to and from Canada.



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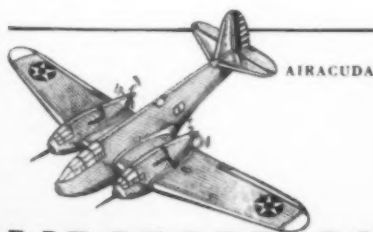
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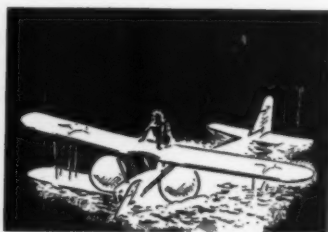
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## CAB REVISES UAL SCHEDULES, RATES

Company Granted Additional Mail Trips as Result of New Data Submitted; Warner Dissents

The Civil Aeronautics Board on Aug. 26 issued a supplemental order approving additional air mail schedules for United Air Lines, and also revising the company's rates on three routes.

In a previous decision, the CAB had set 18c per mi. as the rate on AM1, New York-San Francisco; 19c on AM11, Seattle-San Diego; 36c on AM12, Salt Lake-Seattle-Spokane, and 37c on AM17, Cheyenne-Denver. It also named the schedules on which mail could be carried.

United protested that it received less pay under the new rates and also that mail was being diverted to other carriers because certain schedules were not designated for mail.

The Aug. 26 order granted the company, in addition to those previously set, the following: (a) one round trip between Cleveland and Chicago on AM1, bringing to 10 the total round trips on the New York-Chicago sector; (b) equivalent of one round trip on Chicago-Oakland sector of AM1; (c) one San Diego-Los Angeles round trip on AM11; (d) one daily round trip, Salt Lake City-Portland on AM12, and (e) one daily round trip, Pendleton-Spokane, on AM12.

The order also sets the following rates: 17.5c per airplane mile on AM1, 18c for AM11 and 26c for AM12, for the first 300 lbs. of mail, plus .7 of a cent for each additional 25 lbs. Rates are based on direct airport-to-airport mileage. AM17 was not changed. The Post Office Dept. put the new schedules into effect Sept. 7, although the rates were to be effective from Sept. 1.

"In our opinion of June 22, because of the fact that more current data were not included in the record, the determination of the number of schedules required in the interests of commerce, the postal service, or the national defense . . . was made principally in the light of traffic statistics for . . . August, 1939, with due consideration also being given to seasonal fluctuations and yearly growth in traffic," the CAB said. "However, traffic data reflecting operations down to July 20, 1940, were received at the re-hearing . . . and it is in the light of such data that we herein re-appraise the findings as to approved schedules made in our previous opinion."

The Board also said that "by adding the number of schedules hereinbefore found required in the interest of commerce to the number of schedules approved in our opinion of June 22, 1940, the scheduled route miles represented by approved schedules are increased to approximately 14,217,000; 3,899,000 and 1,978,000 miles per year on routes 1, 11 and 12, respectively. Of these miles represented by approved schedules, it appears reasonable to anticipate that approximately 13,670,000, 3,760,000 and 1,931,000 miles will be operated per year on routes 1, 11 and 12, respectively.

"The aggregate scheduled mileage, including the approximate 194,000 miles anticipated for route 17, which petitioner may be expected to operate in connection with approved schedules amounts to 19,555,000 miles per year, or an increase of approximately 13% over that anticipated in our opinion of June 22, 1940."

UAL may be expected to realize non-mail revenue of about 50c per mile flown in excess of those that would be flown on the schedules approved in the previous opinion, the order said.

## Host on Inspection Tour



Cornelius Vanderbilt Whitney, board chairman of Pan American Airways, has been host to a group of prominent publishers, writers and government representatives on an extensive inspection tour of the line's new route between San Francisco and New Zealand. After landing in Auckland, Whitney and several members of the party planned to fly to Singapore, returning via China Clipper across the Pacific.

"We therefore find that the addition of the schedules approved herein should occasion no material increase or decrease in the total mail pay received by petitioner, and the unit rates set in the previous opinion . . . should be revised accordingly."

CAB Member Edward Warner agreed with the schedules and rates, but said he was "unable to agree with a conclusion which is likely to require a further reopening of this proceeding in order that effect may be given to any further change in the number of schedules available for the carriage of mail. It is my opinion that that necessity should be averted for the future, in this case and in all similar cases, by the fixing by the Board only of a minimum number of schedules."

"Whether schedules be changed semi-annually or monthly, the entire list of schedules operated at any time should be immediately available for the transportation of air mail. The automatic variation of rates with the addition or removal of schedules ought in my opinion to operate so as to maintain a total cost to government for mail compensation which would increase, above the total contemplated by the Board as accruing under its initial determination of a basic rate and a basic number of schedules, only as the total volume of mail traffic handled increased . . . I cannot concur without reservation in a decision which fails to incorporate a feature that seems to me so clearly desirable . . ."

## Bangor-Moncton Line Recommended for B-M

A 220-mile extension from Bangor, Me., to Moncton, N. B., was recommended for Boston-Maine Airways on Sept. 7 in a proposed report issued by CAB Examiner Frank McIntyre.

Finding that the route is required by the public convenience and necessity and that BM is fit, willing and able to perform the service, Examiner McIntyre recommended that the Board amend the company's certificate on AM27, Boston-Montréal, Boston-Caribou, to include the new line.

"While the population of the cities which would be directly served is not large, the community of interest between the areas which would be provided with additional transportation service, as well as the limitations in the existing modes of transportation, support the conclusion that the proposed line will be of material benefit to the public and develop a substantial volume of traffic," he said.

"Thus, through the addition of a comparatively short mileage involving a relatively small cost to the government, an important transportation link would be established which would afford an important feeder line to the applicant's system and as indicated by the record, constitute an important addition to the national defense."

## Joint Airline-Railroad Air Freight Plan Being Considered by AAR

The traffic committee of the Association of American Railroads is said to be considering plans for the formation of a jointly owned air-line-railroad air freight company.

Railway Express Agency, which now operates the airlines' air express business, would handle only ground collection and distribution of the freight. Efforts would be made to revise the rate structure and popularize the use of air freight.

About one and one-half to two years would be consumed by the new company in investigations and cost studies, covering new types of planes, tariffs, ground operations, etc. It is believed that by the end of that time cargo planes would be more fully developed, and actual operations could begin.

It is said to be felt that the railroads must participate in any such company, rather than leaving air freight development to other agencies, in order to avoid loss of business. Cooperation of all airlines, all railroads and REA is to be sought, and individual efforts of railroads will be discouraged.

With planes that could carry 10 tons, and with larger 20-ton ships expected to be developed within the next few years, it is felt that a reduction in air freight rates is necessary. Speed of freight planes would be between 200 and 250 mph., compared with 24 mph.

for regular freight, 36.5 mph. for manifest freight, and 40 mph. for railway express. Airplane design, it is said, has reached the point where cargo ships could operate at tariffs of 10c per ton-mile. This is believed to assume full loads, however, and some airlines have pointed out that such loads could not be expected in the early stages.

The report submitted to the AAR by an "authority on transportation" is said to urge that the railroads immediately name representatives to work with the airlines on the joint company.

The *Wall Street Journal*, said the report, "contends that action looking to the broad future picture must not be postponed and the initiative allowed to get out of the hands of the rail carriers through alternative plans offered in other quarters." Grover Loening, aeronautical consultant, has suggested an air express company at least 51% owned by the airlines.

Although comment on the report has not been received from airline sources, one official stated recently that his company, one of the large airlines, is studying air freight with "a great deal of interest." He indicated that a satisfactory airplane is not available at present, but that his company is studying the Curtiss-Wright CW-20 and a modified Douglas, known as the DC-6.

### Airline Personnel

New TWA employees are: Robert C. Loomis, engineer-pilot and project engineer, Kansas City, Mo.; Winfield E. Fromm, radio technician, KC; Philip Gibbons, Link trainer instructor, KC; F. L. Weeks, "A" radioman, New York; Leo D. Jones, acting sales manager, KC; Stanley Barwis, passenger agent, Newark, N. J., and the following reservation sales representatives—George J. Macko and John E. Spiegel, Pittsburgh; Harris Charles Pearson and Frederick W. King, KC; Melvin V. Kaltenbach, Los Angeles, and Frank Holden Wright, Chicago.

James C. Caine, former radio operator with Delta at Dallas, has joined EAL at San Antonio, Tex., as assistant radio operator. Mechanics Erwin Kirk and Travis Walters recently were transferred by Eastern from San Antonio to Brownsville, Tex., and Mechanic Leon Ward was transferred to Houston.

Recent transfers by Boston-Maine include: A. G. Gabry, from Bangor to the service department, Boston; F. B. Walker, from agent at Lewiston to agent at Portland, Me.; succeeded in Lewiston by Walter McNaughton, former agent at Portland; Ira M. Milliken, from station manager at Bangor to station manager at Portland; I. R. A. Cumming, from training school, Boston, to first officer, Boston; Robert Swain, from dispatcher, Boston, to station manager, Bangor, Me.

Eddie Keane has left EAL at Houston to join Panagra in Lima, Peru, as flight radio operator.

New chief clerk of general traffic in Kansas City, Mo., for TWA is Roy Fuller, former reservations sales representative for the line.

Now doing engineering work for Mackenzie Air Service Ltd. in Canada is Fred Butler, Boeing School graduate.

John Holmgren, graduate of Northwestern University, is working for TWA as space control man at Chicago Municipal Airport.

Alexander Nichols, Eastern courier at Houston, Tex., recently received an award in New York from Mayor Fiorello H. La Guardia on behalf of Houston's Under Thirty Club.

Ross Knight, former chief reservations clerk for Northwest in Minneapolis, has been transferred to Seattle, Wash.

R. F. Ahrens, regional traffic manager of United in Chicago, has announced the appointment of Robert E. Lee to UAL's traffic staff.

### Niles is Braniff's New Ad Manager

Appointment of Paul D. Niles as advertising manager, effective immediately, has been announced by Charles E. Beard, vice president of traffic and advertising of Braniff Airways. Niles in 1935 was graduated from Coe College with a bachelor's degree in economics and journalism. In 1937 he received a master's degree in business administration from Harvard University.



Niles

### TCA Purchase of Lodestars Confirmed; 21 Ships in Fleet

Lockheed Aircraft Corp. on Aug. 30 officially announced the sale of six twin-engine Lodestar transports to Trans-Canada Air Lines with spare parts and equipment, amounting to approximately \$560,000. A report of TCA's decision to purchase the Lodestars was carried in *AMERICAN AVIATION*, Sept. 1.

New ships will be powered by Pratt & Whitney twin-row Wasps and will have a top speed of nearly 265 mph.

Addition of the Lodestars will give TCA a total of 21 Lockheeds, the world's largest fleet of these twin-engine transports, according to the Burbank, Cal., concern.

### New Name for CAA

CAA Order No. 52, signed by Robert Hinckley, Acting Secretary of Commerce and effective Sept. 4, 1940, establishes the Civil Aeronautics Administration. It reads: "It is hereby ordered and directed that that part of the Civil Aeronautics Authority, the functions of which are administered by the Administrator of Civil Aeronautics, under the direction and supervision of the Secretary of Commerce, shall hereafter be known as the Civil Aeronautics Administration."

### Air Traffic Meeting Held in Washington

Control of air traffic under the increasingly congested conditions of the present aviation expansion program and the constant growth of the airlines was discussed Aug. 27 in a meeting of Civil Aeronautics Board, Dept. of Commerce, Army and Navy officials.

An agreement was reached that the primary need is establishment of more airports, and the discussion gave special attention to the possibilities of relieving existing traffic congestion and preventing its increase by segregation of both military and civil training activities from airline and other types of traffic that can be controlled by means of two-way radio in bad weather.

The meeting agreed to organize a technical committee for immediate study of the problems, to make specific recommendations as to policy and to locate currently critical spots for more complete control.

### NWA ASKS NEW ROUTE

Seeks Line from Chicago to Twin Cities With 4 Stops

A new route between Chicago and Minneapolis-St. Paul with stops at Milwaukee, Green Bay, Wausau and Eau Claire was requested by Northwest Airlines on Sept. 3 in a CAB application. Mail, passengers and express would be carried.

The company would engage in visual contact daylight operations and would fly one round trip daily with Lockheed 10A equipment. During the first five years, the following losses from operations would be expected (no provision for mail pay): \$104,710, \$104,621, \$104,534, \$104,445 and \$104,354, respectively.

### TWA SEEKS LINE

Company Asks 874-Mile Routes to Washington, Dayton

TWA on Sept. 6 filed application with the CAB for mail-passenger-property routes from St. Louis to Washington via Evansville, Louisville, Frankfort and Lexington, and between St. Louis and Dayton via Evansville, Louisville, Frankfort, Lexington and Cincinnati, a distance of 874 miles.

During the first five years, without provision for air mail pay, TWA expects: \$44,988 loss in first year, and profits of \$20,887, \$36,412, \$122,395 and \$217,024, respectively.

### Investigation of Airline Connections Sought by Rep. Martin J. Kennedy

Investigation of the airlines in order to determine whether various companies "deliberately bring about failure to make connections in order to injure the reputation of competing lines," was asked in the House of Representatives on Aug. 20 by Rep. Martin J. Kennedy (D., N.Y.).

Rep. Kennedy's resolution (H. Res. 573) is understood to have been prompted by a New York traveling men's association, and is not believed to have much chance of passage. It was referred to the Committee on Rules. Text of the resolution follows:

"Whereas reports have been received that passengers on domestic passenger airplanes have been stranded at airports because the management of the different lines fail to make connections even in good weather; and

"Whereas the airlines charge more for transportation than railroads and buses and by failing to make connections for their passengers cause their passengers to pay for service they do not receive; and

"Whereas many passengers who pay for airplane passage and have to use railroads when the airlines fail to make connections, thereby causing them inconvenience and to refuse to use airlines thereafter, because of the uncertainty of connections; and

### CAB to Act Soon on Airport Traffic Jam

Traffic congestion and hazards have become so acute at many airports that the Civil Aeronautics Board is expected soon to rule all CAA training programs off the federal airways and to recommend that training be carried on at special training fields. The Army, Navy and Marine Corps have agreed to cooperate in relieving busy airports of training programs.

Many municipalities are now working out plans for establishment of separate municipal fields to be used exclusively for training. These include Nashville, Ft. Worth, St. Louis, Chicago and others.

Airlines have been conferring with CAB officials in an endeavor to work out a safety program. Both CAA and military training have created traffic hazards far beyond anything known until now. Many airports have placed stringent regulations on pilot training and a number of cities already have forced the trainers to other fields because of the dangers of collisions in the air and on the ground.

### SENATORS TO PROTEST Oppose Examiners' Report Disfavoring Memphis-Louisville Route; Charge 'Log-Rolling'

Senators from Kentucky and Indiana are said to be planning a protest against the proposed report of CAB Examiners Francis Brown and Lawrence Koster recommending a Houston-Memphis route but not a Memphis-Paducah-Evansville-Louisville line.

The Senators are said to believe that "there has been extensive political log-rolling on the part of certain Tennessee leaders to force all major northeast-southwest air traffic to cross that entire state, regardless of claims of better flying conditions, cheaper fares, more accommodations and faster transportation from a number of important cities such as Cincinnati, Louisville, Indianapolis and Chicago over the proposed direct route from Louisville to Memphis," according to the "Louisville Times."

"Sky Blazers" Series Concluded  
Al Williams' famous "blackout dive" was dramatized on the "Sky Blazers" program on Aug. 31 over the Columbia Broadcasting System, concluding the current series of "Sky Blazers" broadcasts.

"Whereas the sale of airplane transportation that cannot be delivered, through failure to make connections, is tantamount to acceptance of money under false pretenses; and

Whereas this is likely to lead to a refusal by the public to use the new method of transportation and thereby deter the development of the domestic air transportation system;

"Therefore, be it resolved that the House of Representatives authorize the House Interstate and Foreign Commerce Committee, or any subcommittee thereof, to investigate the management of the airlines to determine the cause of missing connections, including whether various airlines deliberately bring about failure to make connections in order to injure the reputation of competing lines, for the purpose of reporting to the House of Representatives on whether legislation is needed to correct the present situation."

One schedule which is said to have caused complaints is the three-minute connection between Pennsylvania-Central and TWA at Pittsburgh. TWA arrives from the west at 9:32 am, and PCA leaves for Washington at 9:35. PCA has been known to wait as much as 10 minutes when TWA is late, however.



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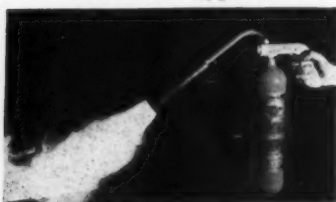


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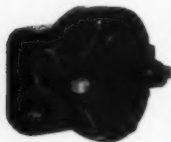


## Fire 'Gun' Approved



Approval by the Underwriters' Laboratories of a pistol-grip carbon dioxide fire extinguisher has been announced by Walter Kidde and Co., Inc., 140 Cedar St., New York, manufacturers of gas type extinguishers. The extinguisher measures 16 inches in height. It is specially recommended for small blazes in pilot's compartment equipment. A bulletin, J-501, describing the unit, may be obtained from the manufacturer.

## Pesco Gives Details on New Hydraulic Pump



A new engine-driven, gear type hydraulic pump for operation of wing flaps, landing gear and other high pressure hydraulic units has been developed by Pump Engineering Service Corp. of Cleveland, O. New pump weighs only 2.3 lbs., said to be less than the smallest comparable pumps, but with a capacity or output greater than the largest pumps now in service.

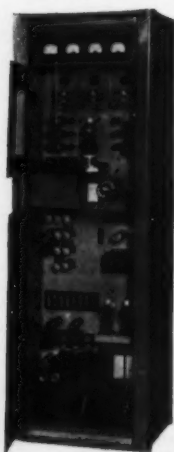
New unit has a displacement of 0.7 cu. in. per revolution and is capable of speeds greater than 4,000 rpm. with pressures up to 1,500 lbs. per sq. in. It is recommended especially for high speed operation. Volumetric efficiency tends to fall off rapidly at speeds below 2,000 rpm., it is claimed.

## The Aridifier



Aridifier made by Logan Engineering Co., Chicago, Ill., used to remove moisture, oil, dirt and scale from air supply lines to sand blast cleaning cabinets at the Wright Aeronautical Corp. plant. Similar types are used by Lockheed and North American.

## Harvey-Wells Model 50-TC



Initial 50-TC unit is now in operation by Boston-Maine Airways at Municipal Airport, East Boston, Mass.

Harvey-Wells Communications Inc., Southbridge, Mass., has announced the introduction of the new type 50-TC, 50-watt ground station transmitter featuring: (a) Dial tune control of circuits—10 positions. (b) Local and remote control facilities. (c) Single 500 ohm line between transmitter and remote unit—no multiple lines necessary. (d) Vertical type chassis construction for complete accessibility. (e) "Push to talk" operation.

## DEVICE MEASURES AIRPLANE SPEEDS

Photoelectric Speed Course Said to Assure Accuracy in Calibrating Performance

The "Photoelectric Speed Course," a new device which is said to assure absolute accuracy in calibrating airplane performance, was demonstrated recently at Los Angeles Municipal Airport before a group of military representatives, aviation officials and technicians.

Developed by Louis S. Wait, test pilot for North American Aviation Inc., and Lewis Massie, NA electrical engineer, the equipment consists of photoelectric cells in combination with an amplifying system connected with a clocking mechanism. The cells, in combination with an optical arrangement of mirrors, are placed in vertical tubes and hooked up with the timing apparatus in the central or recording station by connecting wires.

The tubes are placed on a runway and separated by a previously determined distance. The ship to be tested is then flown over the course, and its shadow or reflection as it passes over the tubes causes an instantaneous operation of the timing apparatus, starting a stop-watch which is automatically stopped when the second tube is reached. While the plane is circling for the return trip, the operator records the reading and trips the watch's hands back to the starting point.

By the use of a slide rule or computing machine each flight speed is immediately determined and the average of the two is taken as official. By making flights in opposite directions wind velocity becomes a negative factor and the plane's performance is authentically determined before the pilot has landed, it is said. If landing speed is also required, it is obtained by making a landing just over the tubes.

Present methods of computing performance are said to take almost two hours, and costs range from \$50 an hour for a light sportplane to \$1,000 for a four-engined transport or bomber. The "Photoelectric Speed Course" takes not more than 15 minutes, it is claimed.

The equipment is portable and requires but a few minutes to set up for operation. About six months have been consumed in perfection of the device.

## Weatherhead Coupling

Weatherhead Co., 300 E. 131st St., Cleveland, O., has announced to the aviation industry its new Ermeto Safety Tube and Pipe Coupling. According to R. E. Remley of the company's airplane division, a catalog has been prepared describing the new Ermeto fitting.

## Airport Fueling Unit



A new airport fueling unit which, according to claims, will service three airplanes in the time formerly required to handle one, has been introduced by the aviation division of S. F. Bowser and Co., Inc., Ft. Wayne, Ind. Known as the standard type 276 Serv-a-plane, the unit has a capacity of 15 to 20 gallons per minute, and "is a complete service station from which all the usual service requirements of an airplane can be taken care of—fuel, lubricating oil, windshield cleaning, fire protection, etc.," the announcement said. The unit's hose is wound by power, furnished by a 1-hp. motor.

## Metallurgical Diagnosis



Installation of a fully automatic X-ray machine that will photograph 5,000 average parts per day has been completed at the Triplett & Barton Laboratories in the factory of Lockheed Aircraft Corp., Burbank, Cal. Built after four years of development work, it represents a complete departure from equipment previously used, both as to speed of operation and design. It is regarded as one of the answers to the stepping up of aircraft production to 10, 25 or 50,000 planes a year.

## FOR EXACT NAVIGATION

Lear-matic Is a Combination of Gyro Compass and Automatic Radio Direction Finder

Invented by William F. Lear, president of Lear Avia Inc., the new Lear-matic has been introduced as a basic instrument for exact navigation because it is a combination of gyro compass and automatic 360 degree radio direction finder. It supplants an entire series of complex flight calculations with a single visual instrument that may be quickly and easily read.

In announcing the Lear-matic, the Dayton, O., firm stated that it "not



Indicating dial for Lear-matic.

only performs the functions of directional gyro and automatic direction finder, but by correlating their indications with a miniature reference of the airplane itself, provides a graphic, continuous and pictorial image which permits straight line instrument navigation while compensating automatically for drift. It requires no effort on the part of the pilot other than to keep two indices aligned. He can fly any desired radial heading toward or away from any radio station, automatically traveling a predetermined straight track over the ground regardless of wind force or direction," it was announced.

Shell Offices to N. Y.  
Administrative offices of Shell Oil Co. Inc., formerly located in St. Louis, are now at 50 W. 50th St. in New York, N. Y.

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## GOVERNMENT CONTRACTS

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## AIRCRAFT

Douglas Aircraft Co. Inc., Santa Monica, Cal., 8/22, airplanes, \$137,064 (CAA).  
 Lockheed Aircraft Corp., Burbank, Cal., 9/3, 410 interceptor pursuit planes with spare parts, \$30,278,787 (War).  
 Boeing Aircraft Co., Seattle, Wash., 9/3, 277 4-engine bombers with spare parts, \$70,449,955 (War).  
 Curtiss Aeroplane Div., Curtiss-Wright Corp., Buffalo, N. Y., airplanes, \$11,476,633 (Navy).  
 Lockheed Aircraft Corp., Burbank, Cal., 9/5, airplanes, \$114,235 (Navy).

## ENGINES, PARTS, ACCESSORIES

Bendix Products Div., Bendix Aviation Corp., South Bend, Ind., 8/21, wheel and brake assemblies, \$37,580 (Navy).  
 Hamilton Standard Propellers Div., United Aircraft Corp., East Hartford, Conn., 8/22, propeller and control assemblies, \$145,952 (Air Corps).  
 Curtiss Propeller Div., Curtiss-Wright Corp., Clifton, N. J., 8/22, propeller assemblies, \$128,685 (Air Corps).  
 Kollman Instrument Div., Square D Co., Elmhurst, N. J., 8/22, altimeter assemblies, \$106,735 (Air Corps).  
 McCauley Steel Propeller Co., Dayton, O., 8/22, propeller blade assemblies, \$82,350 (Air Corps).  
 Consolidated Aircraft Corp., San Diego, Cal., 8/22, airplane parts, \$34,112 (Navy).  
 Eclipse Aviation Div., Bendix Aviation Corp., Bendix, N. J., 8/22, starters, \$31,277 (Navy).  
 Wright Aeronautical Corp., Patterson, N. J., 8/22, engine parts, \$400,000 (indef. contract). (Navy).  
 Hamilton Standard Propellers Div., United Aircraft Corp., East Hartford, Conn., 8/22, propeller parts, \$90,000 (indef. contract). (Navy).  
 Electric Auto-Lite Co., LaCrosse, Wis., 9/3, aircraft engine gage units, \$46,200 (Navy).  
 Steel Products Engineering Co., Springfield, O., 9/4, propeller hubs and blades, \$103,486 (Navy).  
 Bendix Products Div., Bendix Aviation Corp., South Bend, Ind., 9/6, hydraulic brakes, \$25,218 (Navy).  
 Cleveland Pneumatic Tool Co., Cleveland, O., 9/6, landing struts, \$384,450 (Navy).

## MISCELLANEOUS

Electric Laboratories Inc., Indianapolis, Ind., 8/13, vibrator inverters, \$50,500 (Air Corps).  
 Daniel O'Connell & Son, Inc., Dayton, O., 8/13, asphaltic concrete pavement, Westover Field, Mass., \$30,943 (War).  
 Warren Northwest Inc., Portland, Ore., 8/15, landing field paving, Naval Air Station, Seattle, Wash., \$600,297 (Navy).  
 Pioneer Instrument Div., Bendix Aviation Corp., Bendix, N. J., 8/16, aircraft compasses, \$154,250 (Navy).  
 Suncook Mills, Suncook, N. H., 8/16, airplane cloth, \$48,233 (Navy).  
 Socony-Vacuum Oil Co. Inc., New York, N. Y., 8/16, engine fuel, \$29,460 (Air Corps).  
 Aluminum Co. of America, Washington, D. C., 8/16, aluminum alloy, tubing and shapes, \$1,040,990 (Navy).  
 Fairmont Aluminum Co., Fairmont, W. Va., 8/16, aluminum alloy, sheet, \$46,411 (Navy).  
 Christy & Baskett, San Antonio, Tex., 8/17, barracks and recreation buildings, Brooks Field, Tex., \$140,600 (War).  
 American Laundry Machinery Co., Cincinnati, O., 7/13, laundry equipment, Naval Air Station, Jacksonville, Fla., \$49,819 (Navy).  
 Gould & Kress Inc., New York, N. Y., 7/13, roads, walks, paving, service connections, Navy Aviation Patrol Base, Floyd Bennett Field, N. Y., \$93,640 (Navy).  
 Arnold M. Diamond, Brooklyn, N. Y., 7/13, installation of exhausters & exhaust piping, Naval Aircraft Factory, Philadelphia, Pa., \$42,306 (Navy).  
 T. A. Loving & Co., Goldsboro, N. C., 7/13, bachelor officers' quarters & administration building, Naval Air Station, Jacksonville, Fla., \$767,500 (Navy).  
 Doyle & Russell, Richmond, Va., 7/13, superstructure of assembly & repair shop, Naval Air Station, Jacksonville, Fla., \$772,160 (Navy).  
 Engersoll-Rand Co., Philadelphia, Pa., 7/13, exhausters, Naval Aircraft Factory, Philadelphia, Pa., \$122,590 (Navy).  
 Ebersach Construction Co., Tampa, Fla., 7/29, construction & completion of runway & apron paving & drainage, MacDill Field, Fla., \$630,272 (War).  
 Mead & Mount Construction Co., Denver, Col., 7/29, construction & completion of Air Corps operations hangar & annexes, Hill Field, Utah, \$494,000 (War).  
 Geo. A. Baas, Detroit, Mich., 7/29, construction & completion of central heating plant, Westover Field, Chipcoke Falls, Mass., \$404,281 (War).  
 Edward W. Oeffinger, San Antonio, Tex., 8/2, engine test building & spray pool, Duncan Field, Tex., \$259,200 (War).  
 Frank IX & Sons, North Bergen, N. J., 8/2, parachute silk, \$27,000 (Air Corps).  
 Standard Oil Co. of Ky., Louisville, Ky., 8/2, engine fuel, lubricating oil, \$92,906, indefinite contract (Air Corps).  
 Standard Oil Co. of Ind., Chicago, Ill., 8/2, engine fuel, \$32,560, indefinite contract (Air Corps).  
 Standard Oil Co. of La., New York, N. Y., 8/2, engine fuel, lubricating oil, \$41,472, indefinite contract (Air Corps).  
 Shell Oil Co. (San Francisco), San Francisco, Cal., 8/2, engine fuel, \$39,504, indefinite contract (Air Corps).  
 Colson Corp., Elmyra, O., 8/2, stand assemblies, mounting, \$33,281 (Air Corps).  
 William Scrimgeour, Washington, D. C., 8/2, seaplane ration equipment, \$25,479 (Navy).  
 Pratt & Whitney Div., Niles-Bement-Pond Co., West Hartford, Conn., 8/2, radial drills, \$36,450 (Air Corps).  
 Peter Fotorio, San Francisco, Cal., 8/3, temporary housing, Hamilton Field, Cal., \$36,843 (War).  
 Chicago Bridge & Iron Co., Birmingham, Ala., 8/3, elevated steel tank, piping etc., MacDill Field, Tampa, Fla., \$39,175 (War).  
 Barnard Aviation Equipment Co. Inc., 8/5, ammunition accessories, \$933,550 (War).  
 Watt & Sinclair of Florida Inc., Palm Beach, 8/5, temporary buildings, Orlando Airport, Fla., \$155,130 (War).  
 Ward Construction Co., Tampa, Fla., 8/5, temporary barracks & mess buildings, \$137,700 (War).  
 Douglas-Tocler Co., Detroit, Mich., 8/5, gasoline fueling system, Seifridge Field, Mich., \$76,370 (War).  
 Smith Engineering & Construction Co., 8/7, roads & walks, Saufley Field, Naval Air Station, Pensacola, Fla., \$34,875 (Navy).  
 Foster & Creighton Co. Inc., Nashville, Tenn., 8/7, depot supply building and engine repair shop, Southeast Air Depot, Tampa, Fla., \$1,433,400 (War).  
 J. B. Bertrand Inc., & Peter Klewit Sons Co., Denver, Colo., 8/7, runway, Lowry Field, Colo., \$32,966 (War).  
 Pittsburgh-Des Moines Steel Co., New York, N. Y., 8/7, elevated steel tank, Westover Field, Mass., \$35,800 (War).  
 Moore Electric Co., Los Angeles, Cal., 8/7, street lighting system, Hill Field, Utah, \$118,786 (War).  
 Bendix Aviation Corp., Elmira, N. Y., 8/8, aircraft weapons, \$2,745,000 (War).  
 Central Contracting Co., Atlanta, Ga., 8/9, hangars, MacDill Field, Fla., \$1,065,500 (War).  
 P. R. Mallory & Co. Inc., Indianapolis, Ind., 8/13, bomb shackles releases, \$340,020 (Air Corps).  
 Allis-Chalmers Manufacturing Co., Milwaukee, Wis., 8/21, switchgear, \$78,239 (Air Corps).  
 R. D. Andrews Paper Co., Washington, D. C., 8/21, printing paper, \$72,832 (Air Corps).

LEAR NAMES STODDART  
Hughes' Radio Engineer and Marconi Scroll Winner Heads Firm's Pacific Division

Richard R. Stoddart, radio engineer on the Howard Hughes round-the-world flight and Marconi Scroll winner for the outstanding radio achievement of 1938, has assumed an executive post with Lear Avia as head of the Pacific division—Lear Avia Inc. of California.



Stoddart has been identified with the radio industry since 1915 and has been an active flyer since 1928. He became field engineer with the National Broadcasting Co. in 1929 and resigned in 1938 to make the flight with Hughes. He received the Marconi award for his share in the flight, and upon his return, resigned from NBC to become chief radio engineer for Hughes Aircraft Co., a post which he resigned to join Lear Avia.

## Clyde Incorporates

Clyde Aircraft Manufacturing Co. has been incorporated at Collingwood, Ont., and is preparing to handle orders for aircraft parts. T. H. C. Allison is president; W. E. Gorman is vice president, and J. H. Ferguson is secretary-treasurer.

## IAE Names Darneal, Kavanagh

Don P. Smith, president of Interstate Aircraft and Engineering Corp., has announced the appointment of L. A. Kavanagh and Carleton Darneal as sales executives of the company. Jointly, they will direct sales of the new Interstate Cadet, company's new light civilian training plane.

Mercury Readies Production  
On Cabin Plane and Trainer

Two types of planes—a four-place cabin job and a two-place trainer—will be manufactured in Menominee, Mich., by Mercury Aircraft Co., formally organized recently with the election of J. B. Baumann as president. Baumann will serve as designer and chief engineer of the new company.

Mercury's cabin plane will be priced under \$5,000, it was said, and will offer retractable landing gear and slotted flaps. The trainer will feature retractable landing gear, slotted flaps and sliding canopy.

## Republic Products Corp.

## OK's Aviation Corp. Merger

Proposal for a merger with Aviation Corp. was ratified recently by stockholders of Republic Aircraft Products Corp. at a meeting in Detroit. The merger will be made on the basis of 1 1/4 shares of Aviation Corp. for one share of Republic Products.

Earlier, W. Wallace Kellett, president of Republic Aviation Corp., to avert confusion, emphasized that his concern is in no way involved in the merger. Located at Farmingdale, N. Y., Republic Aviation is engaged in the manufacture of military aircraft for the U. S. and foreign countries.

Republic Products, manufacturers of aircraft products and parts, is located in Detroit and has been headed by William F. Wise.

## Miller, Riley With Taylorcraft

Charles G. Miller, Jr. has been employed by Taylorcraft Aviation Corp. at Alliance, O., as a member of the pilot-salesmen staff.

Another new personality at Taylorcraft is J. Russell Riley Jr. who is assisting Richard H. Depew Jr., vice president, general manager and treasurer, in the work of planning and laying out additions to the plant and new landing field.

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## Plant Expansion, Production

# Martin, NA and United Aircraft Expand; RFC Loans to Bendix, Boeing and C-W

## New Factories Planned for Columbus, Dallas; Hall-Aluminum Sold

**B**IGGEST plant expansion news of the fortnight came from six manufacturers—Bendix Aviation Corp., Boeing Airplane Co., Curtiss-Wright Corp., Glenn L. Martin Co., North American Aviation Inc. and United Aircraft Corp.



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—involving extensions to existing plants and establishment of new factories in new locations.

Federal loans were authorized for Bendix, Boeing and Curtiss-Wright.

The Reconstruction Finance Corporation will make available to Bendix up to \$18,587,855, for additional plant construction; Boeing will receive \$10,500,000 to enlarge its plants in Seattle, Wash., and Wichita, Kan., and Curtiss-Wright's loan, up to \$34,000,000, is for the purpose of acquiring plant sites and erecting and equipping plants at Buffalo, N. Y., Columbus, O., and St. Louis, Mo.

The RFC further agreed to lend C-W up to \$15,000,000 for labor and materials and other necessary expenses in the manufacture of airplanes.

### Bendix

Bendix will quadruple facilities for the production of airplane parts, the main plant at South Bend, Ind., preparing to increase capacity between 25 and 30%. Additional company plants are located at Brooklyn, Elmira and Sidney, N. Y., Bendix, N. J., and Baltimore, Md. All of the company's existing plants will be expanded and in addition at least one, possibly three or more entirely new plants in new locations will be erected.

### Boeing

Of the \$10,500,000 in loans to Boeing, between \$7,000,000 and \$8,000,000 will go to the Seattle plant, the remainder being allotted to Stearman Aircraft Division at Wichita.

### Curtiss-Wright

The RFC, in its agreement with Curtiss-Wright, further agreed to lend to responsible cooperating companies of the organization up to \$2,160,000 for the purchase of machinery and equipment and other facilities to produce parts for airplane construction.

These commitments were authorized in contemplation of C-W providing additional plant capacity and facilities satisfactory to the War and Navy Departments and securing orders from the government for at least 3,791 airplanes, with an option running to the government for a like number of additional planes.

C-W, now operating plants at Buffalo, N. Y., Paterson, N. J., Clifton, N. J., Pittsburgh, Pa., and St. Louis, Mo., is expected to spend approximately \$8,000,000 for expansion at St. Louis, giving the division 1,000,000 sq. ft. of floor space. Payroll will be increased from 1,350 to between 8,000 and 10,000.

### Glenn L. Martin

Glenn L. Martin on Sept. 4 launched the first of a series of additions expected to bring total floor space at Baltimore to around 3,000,000 sq. ft. Immediately to be built is a huge expansion of the Middle River, Md., group which will add nearly 400,000 sq. ft. to the present 1,263,000 financed with the company's own funds.

Without waiting for contemplated legislation, the Martin company expects to be manufacturing planes in its new addition around the end of the year. In addition to the actual building of the new structures, this expansion will entail the installation of nearly \$1,000,000 of new machinery and equipment.

It was indicated that other additions would follow as soon as possible and that the company already has received temporary government approval of 703,712 sq. ft. of floor space to be built at Middle River.

Over the ground that was broken on Sept. 4 two buildings will be extended forward 225 ft., a new three-story office building will be built and another extension that triples the size of the drop-hammer building is already nearing completion.

By extending its towering "Navy Bay," already the largest aircraft assembly floor in the country, the company will have a hall 685 ft. long, 300 ft. wide and 75 ft. high over-all. There will be no pillars or posts or any obstruction on the floor and the 40-ft. clear headroom will permit rapid assembly of large planes and flying boats.

### North American

North American of Inglewood, Cal., has let a contract for construction of a plane manufacturing plant on a 140-acre site in Dallas, Tex., estimated to cost \$7,000,000 with equipment.

Actual construction work was started late in August.

The plant proper will cost approximately \$3,500,000, the remaining amount going for machinery.

### United Aircraft

Further expansion of United Aircraft's plants at East Hartford and Stratford, Conn., at an estimated cost of \$15,000,000 was announced late in August. Plans call for another large addition to Pratt & Whitney Aircraft Division's engine factory at East Hartford, which will bring its total floor area to approximately 1,500,000 sq. ft., the addition of another bay running the entire length of the Hamilton Standard Propellers Division in East Hartford, and approximately doubling the area of the Vought-Sikorsky Aircraft Division at Stratford.

"During the last 18 months we have added \$16,000,000 in plant account, and have increased our employment from 5,000 to 15,000 persons," said Eugene E. Wilson, president of United Aircraft. "This next expansion will add nearly \$15,000,000 to our investment. Of this amount, approximately \$12,000,000 will be spent in East Hartford and the remainder in Stratford."

It is estimated that employment for all three divisions of the corporation will be increased to between 18,000 and 20,000.

## Additional Expansion

Additional expansion announcements were released by Beech Aircraft Corp., Jackson Crankshaft Division of Muskegon Specialties Co. and Lycoming Division of Aviation Manufacturing Corp. Construction progress on new plant extensions was reported by Consolidated Aircraft Corp., Piper Aircraft Corp. and Wright Aeronautical Corp.

### Beech Doubles Facilities

Beech, located at Wichita, Kan., will double production facilities as the re-

### Sales Chiefs



When Carl Squier, vice president and sales manager of Lockheed Aircraft Corp., arrived in Chicago recently aboard a TWA Stratoliner from Burbank, Cal., he was greeted by Roscoe J. Behan, Lockheed's Chicago sales representative. Squier spent several days in Chicago with Behan before continuing to New York.

sult of a \$400,000 construction program which was announced on Aug. 28. Included in the work will be an assembly plant, a storage and parts building and an office building.

Officials said the expansion was necessary to handle a recent \$3,410,747 government contract for twin-engine training planes. (AMERICAN AVIATION, Sept. 1).

### 10% Increase for Jackson

In order to fill orders on machining of aircraft crankshafts, a one-story steel and brick addition is being built by Jackson Crankshaft Division at Jackson, Mich. The addition will increase capacity of the plant 10%, according to Carl J. Huebner, general manager.

### Lycoming Forms Plans

Tentative plans for the expansion of facilities at the Lycoming Division at Williamsport, Pa., provide for construction of a new plant unit on a 25-acre site, to contain from 600,000 to 800,000 sq. ft. of floor space.

Harry Woodhead, president of the engine manufacturing concern, said the company's long range program may result in construction of the proposed new unit soon.

## Consair Acquires Hall

Maj. Reuben H. Fleet, president of Consolidated Aircraft Corp. at San Diego, Cal., on Sept. 3 dedicated a new \$2,500,000 addition to the company's plant and said that announcement of "vast future expansion was being withheld because of a Senate bill authorizing conscription of industry."

Maj. Fleet later announced acquisition by purchase of Hall-Aluminum Aircraft Corp. The latter company vacated its Bristol, Pa., site several weeks ago. There have been reports that Consolidated would build a plant at Dallas, Tex., using the Hall name, and it is believed Maj. Fleet's statement on Sept. 3 had reference to this proposal.

The new Consolidated facilities consist of a three-story building having dimensions of 280 by 720 ft.

Company has been contemplating further extensions at San Diego which would involve a cost of \$800,000.

Consair's backlog is in excess of \$120,000,000 and its record total of employees now stands at 9,485.

### Cub Production Predicted

With 60% of construction work on two new buildings completed, Piper Aircraft officials at Lock Haven, Pa., were confident that the new expansion would be ready for occupancy by mid-September. The two new buildings will double the ground area occupied by the Cub factory.

The structures measure 400 by 50 ft. and will be used exclusively for assembly purposes and will bring total square footage to 200,000.

Current production figures are running well over 300 lightplanes per month, with 345 being delivered in July. New plant will enable an unprecedented production of over 500 planes monthly.

### Wright's New Plant

Final arrangements have been concluded with the government for the erection of a mammoth plant near Cincinnati, O., by Curtiss-Wright for the manufacture of Wright aircooled engines. The RFC recently authorized a \$92,000,000 loan to Wright Aeronautical

## 2 Federal Corporations for Plants, Supplies

The Reconstruction Finance Corporation is creating two additional corporations, the Defense Plant Corporation and the Defense Supplies Corporation, each with a capital of \$5,000,000, to aid the National Defense Advisory Commission and the War and Navy Departments in the national defense program.

"The Defense Plant Corporation is necessary in some instances in connection with plants, equipment and machinery, particularly for the manufacture of airplanes, airplane engines and airplane parts," according to a statement by Jesse Jones, federal loan administrator.

"The Defense Supplies Corporation will acquire for storage at strategic points throughout the country a substantial supply of high-test gasoline for the War and Navy air services," Jones said. The RFC has received an allocation of \$50,000,000 for the purchase of gasoline.

No specific sum has yet been set aside for use by the Defense Plant Corporation.

Corp., C-W division, for the large engine factory. (AMERICAN AVIATION, Aug. 15).

Wright soon will place initial contracts for over \$8,000,000 worth of machine tool equipment for the project.

The site selected for the new plant, Guy W. Vaughan, C-W president, revealed for the first time, is a tract of 200 acres located north of Cincinnati and adjacent to suburban Lockland, O. The plant will be of single-story construction and will comprise more than 1,000,000 sq. ft. or over 25 acres of floor space.

The new unit will employ between 12,000 and 15,000 persons.

### Cessna Adds 60%

Dwaine L. Wallace, president of Cessna Aircraft Co., Wichita, Kan., announced completion of a plant expansion program which has added 60% to the formerly available floor space. A large new assembly building is now in use and a new air-conditioned office and engineering building will be occupied Sept. 15. Further expansion is contemplated, Wallace indicated.

### Adel Personnel Doubled

In line with its recently announced expansion program, Adel Precision Products Corp. personnel at Burbank, Cal., has been more than doubled during the last 90 days, according to H. Ray Ellinwood, president, who said that more than 125 persons are now employed.

### Ryan Backlog Up

Consolidated backlog of Ryan Aeronautical Co. of San Diego, Cal., now stands at approximately \$3,200,000.

Present production is reported at a high rate and will be still further increased upon the completion of an addition to the company's factory which represents an investment of over \$200,000 and which will double the size of the present main building, bringing total area to approximately 160,000 sq. ft.

### Sperry Production Booms

Sperry Gyroscope Co.'s production of precision equipment is "well abreast of national defense needs," according to R. E. Gillmore, president and general manager, who explained that "our one shift a day production capacity of three years ago is six times that figure now." Indicating that production capacity could be increased to 10 times over the 1937 level, Gillmore said the payroll has increased from 800 to 4,300.

It has been estimated that Sperry will do a total business of \$40,000,000 in 1940.

The company now has approximately 35 sub-contractors building various parts for Sperry's completed products.

**Lycoming Division of Aviation Manufacturing Corp., Williamsport, Pa.**—Lycoming 50- to 75-hp. engine sales for the first seven months of 1940 have exceeded total sales for 1939 and were 213% greater than for the same period last year. Within a single week two

orders, each for 100 engines, were received from Porterfield Aircraft Corp. and Luscombe Airplane Corp.

**Solar Aircraft Co., San Diego, Cal.**—An increase in commercial airline replacement business and original equipment, amounting to 158%, was announced for the first six months, compared with the same 1939 period. Company's increase in all branches of manufacturing was 206%, the comparative sales figure being \$726,683 for the first half, against \$237,478 for the corresponding 1939 period.

## FIRM BEGINS MOCKUP

**LA Aircraft Corp. Purchases Patents and Machinery from Alcor Aircraft of Oakland**

A new organization for the manufacture of aircraft, Los Angeles Aircraft Corp., having rented a temporary factory location in the LA industrial area, will begin mock up on its military pursuit plane described as being similar to the Army P-38, manufactured by Lockheed Aircraft Corp.

New company has purchased from the old Alcor Aircraft Co. of Oakland, Cal., certain patents and manufacturing machinery to carry on the Alcor process of cold pressed plywood plastic construction. The company has moved the machinery and molds into its new building.

LA Aircraft has plans for an aircraft engine for which is claimed exceptional performance and low fuel consumption. Company also expects to manufacture sub-assemblies and parts for other aircraft concerns.

Vice president and general manager of LA Aircraft is E. J. Buckley.

## ADEL DIRECTORS NAMED

**Tenny and Cavanaugh to Board; Former Is Appointed Plant Superintendent**



Tenny

Henry S. Tenny has been elected to the board of directors and appointed plant superintendent of Adel Precision Products, Burbank, Cal., according to H. Ray Ellinwood, company president. Also elected as a director was Robert Cavanaugh, partner of Cavanaugh & Morgan Co., stock brokers. Tenny for the last 18 years has been identified with the production of precision products. Recently he has been managing director of the British Roia Co., producers of fuel pumps and other aircraft accessories.

## Consair Engineer



J. M. Gwinn Jr.

Is now production engineer of Consolidated Aircraft Corp. at San Diego, Cal., having resigned recently as chief project engineer of Bell Aircraft Corp.

## Outlet for Simmonds in West

Opening of a Pacific coast office at 72 Tujunga Ave., Burbank, Cal., in the new building of Librascope Inc. has been announced by Simmonds Aerocessories Inc., 10 Rockefeller Plaza, New York, through W. R. Enyart, general manager. Enyart also announced that Simmonds has assumed sales and service representation for Librascope products in the eastern markets.

## Williams Corp. Leases Offices

Col. Roger Q. Williams, president of Williams Aircraft Corp., has announced that the corporation has leased offices in the Spitzer Bldg., Toledo, O. Prior to the new location, the firm had been occupying space in the Franklin Farms Bldg. at Franklin Airport.

## PT Job Begins

All-Metal Aircraft Co., Alhambra, Cal., has begun work on construction of a two-place primary trainer at its factory at 1106 Meridian St. Preliminary tooling for the job is under way.

## C. S. Gross to Vega Board; Succeeds Innes

Courtlandt S. Gross, president of Vega Airplane Co., has been made a member of the board of directors of the company, it was announced on Aug. 24. Gross fills the vacancy created by the resignation of Walter P. Innes Jr. of Wichita, Kan.

The Vega company, subsidiary of Lockheed Aircraft Corp., now has a backlog in excess of \$31,000,000 and is building a \$3,500,000 factory near Union Air Terminal in Burbank, Cal.

## Bradford Named President of Indianapolis Engine Co.

Howard M. Bradford has been named president of Air-Line Aircraft and Engine Manufacturing Co. which will manufacture airplane engines in Indianapolis.

The corporation will build radial air-cooled, five-cylinder engines of 100 hp. at 1,400 rpm. and 120 hp. at 1,400 rpm. The powerplant will weigh 275 lbs.

The engines have been flight-tested and approved but a plant site has not yet been selected. The engines will be offered to the government for use in training ships.

## Stansel Heads Aeroproducts

Aeroproducts Division, General Motor's newest Dayton branch, will be headed by E. W. Stansel who was transferred from the Frigidaire Division. The company will specialize in the manufacture of airplane propellers.

Aeroproducts will construct a new propeller plant at Vandalla, O., opposite Dayton Municipal Airport, contract for the first unit having been awarded to Frank Messer & Sons Inc. of Cincinnati. A concrete building 135 by 70 ft. will contain two test chambers for propellers up to 24 ft. diameter, and adjoining factory will be constructed later.

## Stinson Production

Production of the observation plane ordered some time ago by the Army is to begin shortly at Stinson Aircraft Division, Nashville, Tenn. An Army board has completed tests and inspections. Production of Stinson 105's is now up to three a day. Employment is over 800 and payroll \$100,000 a month.

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**WORLD'S PREMIER FLIGHTEX FABRIC AIRPLANE FABRIC**

## Stock Comments

Aviation Stocks Are Following,  
Not Leading, In Market Rally

By PHILIP P. FRIEDLANDER

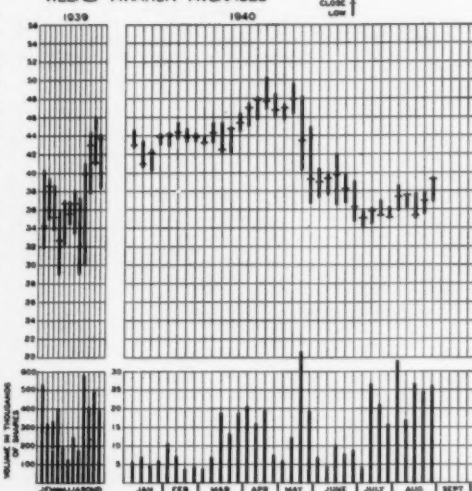
Chart Data by Wyckoff Associates Inc.

How the stock market, uncannily, predicts future events is illustrated by the recent action of security prices. When the Germans broke through the French lines, the stock market sold off very badly in anticipation, with all its horror, the capitulation of that great republic.

The reverse behavior of the market in rallying from the lows of 110 of the Dow Jones Industrial Averages to close to 135 is an optimistic intimation that the fortunes of war might be turning more favorable for the British Isles. Yet before this happy change of market trend took place, it was suggested by this column that accumulation of securities was going on. When ready, it was stressed, the stock market will seek higher levels, and that should be in the not too distant future.

The signs of accumulation could not be termed as unmistakable, but were apparent. Volume was small, dwindling almost to nothing, and there was a certain immunity to the war news that suggested underlying strength, even though industrial activity as chronicled by rising indices found no immediate favorable response marketwise. The narrow trading ranges of stock prices hinted

WEEKLY AVIATION AVERAGES



that an important swing was not far away.

The move has started now. The problem resolves itself into just how far it will go. The area of 135 might be a temporary halting place—a resting place, an area where a swing backward and forward may create a new base for continued later advance to 147. This theory is our own and does not agree with others who contend that the market should have gone lower before establishing a major forward move.

Huge Army Bomber Ready 'In Few Weeks';  
Martin Lays Keel for 'Winged Battleship'

**S**HORTLY after Gen. H. H. Arnold, chief of the Army Air Corps, authorized Douglas Aircraft Co. to release information on the new 140,000-lb. Army bomber now under construction at the company's Santa Monica, Cal., plant, the Glenn L. Martin Co. in Baltimore announced the laying of a keel of the Navy's 168,000-lb. flying boat, "the largest in the world."

The new Douglas airplane, to be known as the B-19, "will be somewhat similar in appearance to the present Flying Fortress type, but will be much larger," the statement said. Gross weight will be 70 tons, including a useful load of some 28 tons. Wing spread will be over 210 ft. and speed over 200 mph. Four engines will total 8,000 hp. and the range will be over 6,000 mi. (AMERICAN AVIATION, Apr. 1) The B-19 is said to be in the last stage of construction, and when finally taken over by the Army, it will become "a veritable flying laboratory for assembly and check of tactical and structural information from which may come the great cargo and troop transports of the future." A series of ground checks are expected to be made "in a few weeks."

No information has been released by the Navy on the great Martin bomber, but specifications given in AMERICAN AVIATION, Apr. 15, are summarized as follows: Wing spread, 210 ft.; gross weight, 84 tons; useful load, 32 tons; horsepower, 9,000; cruising speed, 200 mph.; range, 12,000 mi. Specially built at the Martin plant for the "winged battleship" is the huge steelwork jig in which the hull will take form. Most of the parts of the ship have been fabricated already and the laying of the keel marks the actual start of assembly.

## Aviation Follows

This summary of the general stock market is so necessary because it affords an adequate background to gauge the behavior of aviation securities. Unlike a year ago, aviation stocks have followed, not led, the general market. Why? Orders pour in for the manufacturing companies. Where once this government wanted 5,000 first-line planes the demand is now for 50,000 planes. An essential difference which despite restrictions on earnings justifies the feeling that all first-line manufacturing plants will have good business ahead at least for several years, regardless of how the tide of the second World War goes.

What deterrent prevents speculative enthusiasm? Are the problems connected with plant expansion so great that investors and speculators are hesitant

buyers? Standard Statistics point out that there is definite indication that orders will be larger and be maintained at a rate above the years prior to 1940. Have aviation securities already discounted this future business?

It is possible that aviation stocks are no different from the steels, the shipbuilding, the coppers, the machine tool companies. The whole market has failed to properly evaluate what is going on in the business world. Even when it is realized that the end of the war might bring with it a trail of disarmament demands, nevertheless, the facts remain that stocks have not discounted their immediate business prospects. As the time approaches for the fog and bad weather to hinder the German operations and the British show renewed strength, the market will express that confidence by swinging into higher grounds. The market as expressed in prices is not too high to accept bad news.

The aviation averages recently hit 41. The average waded through supply shown on the chart around the 38-39 area. During the week of June 13, the averages sold as high as 42.03. The low occurred during the week of July 6, at 34.06. The recent rise of about six points may mean that at 40-41 another period of digestion is necessary before attempting higher ground. Chart studies reveal the possibility of the old highs around 50.32 being tested later on.

The airline stocks appear to be in a good position. Chart studies reveal that Eastern Air Lines and Pan American are possibly headed for much higher prices. Percentage-wise their appreciation should be better than other stocks in that group.

## Spier Incorporates in N. Y.

## For Production on Monoplane

Plans have been completed for the construction of a main building, office and engineering building, and a hangar for Spier Aircraft Corp., which was incorporated in New York recently for the manufacture of commercial and military aircraft. Executive offices of the concern, directed by Siegmund Spier and his sons, are at 26 Court St., Brooklyn, N. Y.

Location of the new plant site was not disclosed, but it was revealed that the main building would be 300 by 100 ft. Entire facilities will be in excess of 50,000 sq. ft. and will occupy 20 acres "at a modern airport."

Scheduled for initial production is a low-wing monoplane.

## Bache Issues Airline Study

"Handbook of the Air Transport Industry" is the title of a 48-page booklet issued by J. S. Bache & Co., 36 Wall St., New York City, containing brief descriptions of the individual lines, routes operated and applied capitalization, operating statistics, etc.

## NEW YORK STOCK EXCHANGE

	Week Ended Aug. 24				Week Ended Aug. 31				Week Ended Sept. 7			
	High	Low	Change	Sales	High	Low	Change	Sales	High	Low	Change	Sales
American Airlines	57 1/4	53 1/4	+ 2 1/2	3,300	56 3/4	53	+ 1 1/2	2,200	57 1/4	55	+ 1 1/2	5,904
Aviation Corp.	47 1/4	4	+ 1 1/2	28,700	43 1/4	4 1/2	+ 1 1/2	28,900	47 1/4	4 1/2	....	22,800
Bendix Aviation	30 3/4	28	+ 1 1/2	3,700	31	29 1/2	+ 1 1/2	6,500	32 1/4	30 1/2	+ 1 1/2	10,920
Boeing Airplane	14	13 1/4	+ 1/2	3,400	15 1/2	13 1/2	+ 1 1/2	13,900	17 1/2	15	+ 1 1/2	48,300
Consolidated Aircraft	22	19 1/2	+ 1 1/2	2,400	22 3/4	21 1/4	+ 1 1/2	2,700	24 1/4	22 1/2	+ 1 1/2	3,200
Continental Motors	3	2 1/2	+ 1/2	10,100	3 1/2	2 1/2	+ 1 1/2	27,800	3 1/2	3 1/2	....	45,700
Curtiss-Wright	7 1/4	6 1/4	+ 1 1/2	12,800	8 1/4	7	+ 1 1/2	42,500	8 1/4	8 1/4	+ 1 1/2	57,200
Curtiss-Wright A	26	24 1/4	+ 1 1/2	4,000	27 1/2	25 1/2	+ 2 1/2	3,700	28 3/4	27 1/2	+ 1 1/2	4,200
Douglas Aircraft	71 3/4	68 1/4	+ 1 1/2	3,000	73	69 3/4	+ 3 1/2	2,200	78 3/4	73 1/2	+ 5 1/2	12,000
Eastern Air Lines	29 1/2	28 1/4	+ 1/2	1,300	29 3/4	28 1/2	+ 1 1/2	2,500	31 1/4	29 3/4	+ 1 1/2	4,400
Ex-Cell-O	30 3/4	28 3/4	+ 1 1/2	2,000	32 1/2	30	+ 1 1/2	3,200	32 3/4	31 3/4	+ 1 1/2	6,300
Grumman Aircraft Eng.	16 1/2	15 1/2	+ 1 1/2	1,300	18 1/4	16	+ 2 1/2	13,600	30 3/4	27 3/4	+ 3 1/2	33,400
Lockheed Aircraft	26 1/4	23 1/4	+ 1 1/2	7,800	27 3/4	25 1/2	+ 2 1/2	10,100	33 1/4	31 3/4	+ 1 1/2	14,400
Glenn L. Martin	30 3/4	28 1/2	+ 1 1/2	7,100	32 3/4	29 3/4	+ 3	1,800	33 1/4	31 3/4	+ 1 1/2	4,000
Natl. Aviation Corp.	10	9 1/4	+ 1/2	900	11	9 1/4	+ 1 1/2	1,800	11 1/2	10 3/4	+ 1 1/2	4,000
N. American Aviation	17 1/2	15 1/2	+ 1 1/2	11,000	17 1/2	16 1/2	+ 1 1/2	14,400	18 1/4	17 1/4	+ 1 1/2	21,000
Pan American Airways	14	12 3/4	....	3,300	14 1/2	13 1/4	+ 1 1/2	2,600	15 1/4	14	+ 1 1/2	15,800
Sperry Corp.	38	35 1/2	+ 1 1/2	2,600	39	37 1/4	+ 1 1/2	4,200	41 1/4	39	+ 1 1/2	5,900
Square D Co.	30 3/4	30	....	1,300	32 3/4	30	+ 2 1/2	2,500	33 1/4	31 1/2	+ 1 1/2	4,700
Thompson Products	32 1/2	32	+ 1 1/2	200	34	31 1/2	+ 2 1/2	1,700	36	34 1/2	+ 1 1/2	2,500
TWA	18	16 1/2	+ 1 1/2	4,300	17 1/2	16 1/2	+ 1 1/2	3,300	18 1/2	17 1/2	+ 1 1/2	7,200
United Aircraft	37 1/2	34 1/2	+ 1 1/2	7,500	40 1/2	36 1/2	+ 3 1/2	14,400	42 1/2	39 1/2	+ 3 1/2	16,100
United Air Lines	16 1/2	14 1/2	+ 2	10,100	16 1/2	16 1/2	....	5,700	17 1/2	15 1/2	+ 2 1/2	15,300
Wright Aeronautical	....	....	....	....	109	100	+ 18	210	111 1/4	105	+ 6 1/4	80

## NEW YORK CURB EXCHANGE

	Week Ended Aug. 24				Week Ended Aug. 31				Week Ended Sept. 7			
	High	Low	Change	Sales	High	Low	Change	Sales	High	Low	Change	Sales
Aero Supply A	....	....	....	....	21	21	+ 1/4	100	....	....	....	....
Aero Supply B	5 1/2	5 1/2	+ 1/4	1,500	5 1/2	5 1/2	....	600	5 1/2	5 1/2	+ 1 1/2	2,600
Air Associates	....	....	....	....	....	....	....	....	11 1/2	11	+ 1/2	200
Air Investors	....	....	....	....	2	1 1/4	+ 1/4	200	21	21	+ 5	700
Air Investors cv pf	....	....	....	....	....	....	....	....	....	....	....	200
Air Investors war	....	....	....	....	....	....	....	....	....	....	....	....
Aviation & Transp.	2 1/2	2 1/2	....	2,300	2 1/2	2 1/2	....	2,800	2 1/2	2 1/2	+ 1 1/2	4,300
Beech Aircraft	4 1/2	4	+ 1/2	1,300	6	4	+ 2	7,400	6	5 1/2	+ 1 1/2	2,800
Bell Aircraft	15 1/2	15	+ 1/2	400	16 1/2	15	+ 1 1/2	800	17 1/2	16 1/2	+ 1 1/2	3,100
Bellanca Aircraft	3 1/2	3 1/2	....	300	4	3 1/2	+ 1/2	800	4 1/2	4 1/2	+ 1 1/2	800
Breeze Corps.	5	4 1/2	+ 1/2	400	5 1/2	5	+ 1/2	200	5 1/2	5 1/2	+ 1 1/2	1,500
Brewster Aero.	10	8 1/2	+ 1 1/2	2,400	10 3/4	9 1/2	+ 1 1/2	4,000	11	10	+ 1 1/2	11,300
Canadian Colonial	6 1/4	5 1/4	+ 1/2	400	6 1/2	5 1/4	+ 1/2	500	6 1/2	6	+ 1/2	3,300
Fairchild Aviation	9 1/2	9	+ 1/2	300	9 1/4	9 1/4	+ 1/4	100	9 1/4	9 1/4	+ 1 1/2	400
Fairchild Eng. & Air.	4 1/2	4	+ 1/2	2,100	4 1/2	4 1/2	+ 1/4	2,300	4 1/2	4 1/2	+ 1 1/2	2,900
Irving Air Chute	....	....	....	....	13 1/2	13	+ 1/2	500	14 1/2	13 1/2	+ 1 1/2	1,100
Penn-Central Airlines	15 1/2	14 1/2	+ 1 1/2	1,400	15	15	....	200	16 1/2	14 1/2	+ 1 1/2	3,500
Republic Aviation	4 1/2	4 1/4	+ 1/4	2,000	4 1/2	4 1/4	+ 1/4	3,400	4 1/2	4 1/4	+ 1 1/2	3,500
Roosevelt Field	2	2	....	200	2 1/2	2 1/2	+ 1/2	100	2 1/2	2	+ 1 1/2	800
Ryan Aeronautical	....	....	....	....	4 1/2	4 1/2	....	100	5	4 1/2	+ 1 1/2	600
Vultee Aircraft	8 1/2	7 1/2	+ 1 1/2	200	8 1/2	7 1/2	+ 1 1/2	100	8 1/2	8	+ 1 1/2	3,200
Waco Aircraft	....	....	....	....	4 1/2	4 1/2	+ 1 1/2	100	4 1/2	4 1/2	+ 1 1/2	800
Western Air Express	4 1/2	4	+ 1/2	1,200	....	....	....	....	4 1/2	4 1/2	+ 1 1/2	2,400

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## Great Britain Takes 62% of July's \$22,813,601 Aero Export Sales

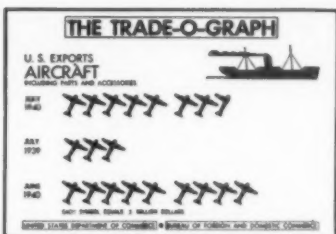
U. S. aeronautic exports in July of \$22,813,601 raised the valuation of shipments for the first seven months of 1940 to \$161,200,691, some 178% above the figure for same period last year and 37% over the entire 1939 total. July exports, though 21% less than those for June, exceed the July 1939 amount by 132%.

Biggest shift in aeronautic export trade was the almost complete cut-off of shipments to France, dollar value dropping from \$17,196,446 in June to \$26,832, and corresponding rise in United Kingdom purchases from \$5,007,647 in June to \$14,338,191. Sales to the United Kingdom, which took over accounts originally placed by France, amounted to 62% of the July total.

Great Britain spent \$12,776,643 for 173 aircraft, and \$940,414 for 77 engines. Canada, second best July customer, paid \$1,851,005 for 87 planes, and purchased the greatest number of engines, 315, for \$2,520,310.

July exports included 305 powered landplanes \$14,117,517; 23 landplanes in partial shipments to be assembled abroad \$1,945,018; 7 seaplanes and amphibians \$499,544; 3 gliders \$1,390; partial shipments of seaplanes and amphibians \$522; 437 engines \$3,829,135; engine parts and accessories \$275,768; propellers and parts \$837,470; parachutes and parts \$89,328; instruments and parts \$153,240; other parts and accessories \$1,064,669.

The 24 foreign markets spending more than \$10,000 for U. S. aviation products in July follow:



United Kingdom	\$14,338,191
Canada	4,905,461
China	1,350,477
Portugal	463,416
Australia	371,801
Netherlands Indies	277,290
Brazil	274,771
Venezuela	158,381
Finland	115,440
Mexico	101,845
Argentina	65,020
Burma	52,696
British India	52,682
Turkey	48,618
Uruguay	29,155
France	26,832
Costa Rica	25,000
Hong Kong	20,442
Mozambique	18,358
Azores & Madeira	17,573
Republic of Panama	17,475
Thailand	15,423
Peru	13,473
Colombia	12,117

Of U. S. possessions, Hawaii was leading purchaser of aeronautic products taking \$53,198 worth, Alaska being second with \$19,144.

## Incorporations

California—Aircraft Instrument Co.; to manufacture position indicators; granted permit to issue 20,000 shares of capital stock authorization of 250,000 shares at \$1 par. Directors include Frank E. Benedict, Peter L. Cuccia, Clarence E. Cronkite.

Delaware—Allyn Aviation Corp.; principal office, U. S. Corporation Co.; aircraft and equipment; capital \$20,000, par \$1. Incorporators: Wilson D. Smith, Edwin E. Lindgren, Thomas A. McCarthy, New York.

Delaware—Brookes Aircraft Corp.; principal office, Colonial Charter Co.; "patents, patent rights and anything pertaining to aircraft equipment"; capital \$100,000. Incorporators, J. A. Lucey, I. C. Hoelle, J. E. Schell, Wilmington.

Delaware—Monocoupe Aeroplane and Engine Corp.; principal office, U. S. Corporation Co.; aircraft; capital, \$1,000,000, par \$1. Incorporators, M. S. Cook, B. C. McGee, M. K. Hynson, Dover.

Illinois—Aircraft Products Corp., 1725 Diversey Parkway, Chicago; to manufacture wooden propellers; firm occupies one floor of a building at above address; 200 shares common p. v. at \$100. Incorporators: S. H. Gensburg, S. Wolberg, H. C. Edelman. Correspondent: G. L. Lewis, 100 N. La Salle St., Chicago.

Indiana—Mishawaka Airport Inc., Mishawaka; to operate an airport; 1,000 shares n. p. v.; agent, Glenn E. Moon. Incorporators: B. W. Schlemmer, Glenn E. Moon, Mrs. Frieda Moon, Mrs. R. W. Schlemmer.

Indiana—Moon Flying Service Inc., Mishawaka; to operate airplanes for purposes of instruction, rental and transportation of passengers; agent, Glenn E. Moon; 1,000 shares n. p. v. Incorporators: Glenn E. Moon, R. W. Schlemmer, Mrs. Frieda Moon, Mrs. R. W. Schlemmer.

Indiana—Plainfield Flying Service Inc., R. F. D. 1, Plainfield; passenger transportation, flying instruction, deal in airplanes; no capital stock. Incorporators: Robert F. Clay, Cyril F. Boling, Joseph E. Hardin.

Nebraska—Beatrice Airport Corp., Beatrice; to acquire, operate and sell airports in Gage County; \$25,000. Incorporators: R. S. Marvin, Ladd J. Hubka, E. C. Austin, Beatrice.

New Jersey—Hobby Jobbers, Newark; manufacturing aircraft; 1,000 shares. Agent, Julius P. Litwack.

New Jersey—Royal Flying Service Inc., 880 Bergen Ave., Jersey City. Fiscal agent, Abe A. Schultz. Incorporators: Eugene P. Kenny, 51 Bidwell Ave., 4 shares; Samuel L. Ackerman, 10 State Normal Pl., and Henrietta Schultz, company address, each 3 shares, of the 100 shares capitalization n. p. v.

New York—Airline Delivery Service Inc., New York, air transportation. William J. Harnisch, 25 Broadway, New York.

New York—Defendaire Corp., Yonkers; aircraft; 200 shares n. p. v. J. Bennett, 30 S. Broadway, Yonkers.

Washington—Universal Aircraft Corp.; factory to be constructed in the vicinity of Tacoma or Seattle. Incorporators: Iran Merrick, Jr., attorney; Mrs. Dolores Meade; P. D. Miller. The firm has purchased Stearman-Hammond Airplane Co. of San Francisco, according to Merrick.

Wisconsin—Waukesha Airways Inc., Waukesha; to further an air training program in Waukesha; \$10,000 capitalization owned by the following officers: Seth Pollard, president and treasurer; Dale Crites, secretary; G. G. Hein, vice-president.

## SEC Survey Shows Financial Data on Registered Firms

The Securities and Exchange Commission has released a supplement for 1939 to a previous volume of a WPA "Survey of American Listed Corporations" showing financial data for most of the 34 manufacturers of aircraft or equipment which are registered under the Securities Exchange Act of 1934.

Combined business volume of 21 firms in 1939 was about \$274,000,000, against \$198,000,000 in 1938, and the 1939 combined operating profit of \$48,000,000 (16.5% of sales) contrasted with the 1938 figure of \$28,000,000 (14.3%). Combined profit after all charges was \$34,000,000 or 12.3% of sales in 1939, against \$23,000,000 (11.6%) in 1938.

The 16-page survey is available without charge from the publications unit of the SEC, Washington, D. C. The 24 firms shown are: Aviation Corp., Beech, Bell, Bellanca, Boeing, Breeze, Brewster, Consolidated, Curtiss-Wright, Douglas, Fairchild Aviation, Grumman, Irving, Lockheed, Martin, Menasco, North American, Republic, Ryan, Sperry, United Aircraft, Waco, Warner, Wright.

### Airesearch Mfg. Co.

Airesearch Manufacturing Co. has been organized at 1740 Standard Ave., Glendale, Calif., to offer technical advice to the aviation industry. Personnel includes engineers from California Institute of Technology and other technical institutions. Company will provide air tunnel and other scientific forms of testing.

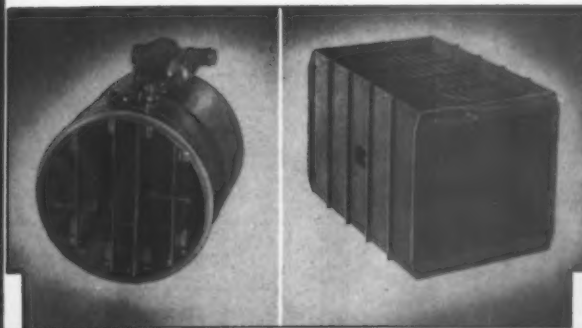


## MARK OF MASTERY IN THE HEAT TRANSFER FIELD

Dedicated to the advancement of American Aviation, Airesearch presents an organization whose personnel, facilities and resources are without a peer in the increasingly important heat transfer field. Here research, development and final production of Supercharger Intercoolers, Engine Oil Coolers and Prestone Radiators take place under one roof. Likewise, Airesearch has attained leadership in the development and manufacture of cabin pressure control systems. Correspondence and engineering consultation are invited.

ENGINE  
OIL COOLERS

SUPERCHARGER  
INTERCOOLERS



## AIRESEARCH MFG., CO.

1740 Standard Avenue Glendale, Calif.

## Vultee Raises Stock to Take Over Stinson and Barkley-Grow Divs.

With approval Sept. 5 by stockholders of increased capitalization from 1,000,000 \$1-par capital shares to 1,500,000 shares, Vultee Aircraft Inc., is completing acquisition of Stinson Aircraft Division and Barkley-Grow Aircraft Division of Aviation Manufacturing Corp. (AMERICAN AVIATION Aug. 15) at a sales price of \$2,341,800.

On the date of the purchase contract, Aug. 7, Vultee had outstanding 750,000 shares, with 37,500 reserved for officers and executives. A total of 302,168 shares will be issued to Aviation Manufacturing Corp., leaving 1,052,168 shares outstanding.

Stinson's new plant at Nashville, Tenn., and the Vultee unit at Downey, Cal., are expected to be enlarged shortly. No announcement has been made concerning plans for the unused Stinson plant at Wayne, Mich., (Detroit) and the Barkley-Grow property at Detroit.

Vultee was formerly a division of Aviation Manufacturing Corp., but was reorganized in Nov. 1939. Latter still owns directly 100,000 Vultee shares subject to warrants, and its parent, Aviation Corp., owns 350,000 Vultee shares. Three directors of Aviation Manufacturing Corp. are also Vultee directors.

## SEC States Policy On Stock-Waiting Period

With Presidential signing late in August of the Investment Company Act of 1940, containing a provision which allows the Securities and Exchange Commission to shorten the 20-day waiting period following registration of new securities, the Commission announced its policy in determining effective date would be based on the following:

- (1) Adequacy of the original statement and its compliance with requirements of the Securities Act of 1933;
- (2) advisability of permitting acceleration of material amendments filed after the initial filing date; and (3) character and date of public information previously or concurrently filed with the commission or with any other federal agency.

"It will be the commission's policy to cooperate with registrants in order that effectiveness . . . may be expedited . . ." it was announced. The registration division will continue to offer its services to proposed issuers and their counsel.

### CIO Wins Vultee Poll

The NLRB has announced certification of International Union United Automobile Workers of America, Local No. 683, affiliated with the CIO, as the sole collective bargaining agency selected by a majority of employees of Vultee Aircraft, Inc., Downey, Cal. Board action was based on a secret ballot election held July 19, resulting in a count of 1,439 to 512 in favor of the CIO organization.

## Washington Financial Review

### SEC Registration

#### Standard Aircraft Products Inc.

Company's registration statement filed Aug. 24 estimates net proceeds of \$259,600 will be received from sale of entire offering: 40,000 shares of cumulative convertible preferred capital stock (\$7.50 par) and 20,000 shares of common capital stock of 10 cents par. To be sold in units of one share preferred and one-half share common at \$7.55 per unit; an additional 25,000 common shares to be sold at 10 cents a share. Total of 80,000 common shares are reserved for issuance to holders of the 40,000 preferred. Underwriters: Steelman & Birkins, New York City.

Company holds option to purchase all issued and outstanding stock of Gem City Sheet Metal & Mfg. Co., Dayton, O. by Oct. 3, 1940, and proposes to produce specialized aircraft products, including a thermostat temperature control for internal combustion engines, oil coolers, engine cooling radiators, supercharger coolers, lamps and lamp assemblies, oil separators and to fabricate sheet metal parts. Gem City formerly sold its products to United Aircraft Products Inc. Backlog Aug. 10 was \$84,199.

Standard, which owns no real property, is headed by Reginald Webster, president, director; Harry M. Hiestler, director and vice president; and Thomas E. Wilson, director, secretary. Gem City's officials are Carl Wilcke, president; Joseph F. Gersbacher, vice president, treasurer; Robert Casey, secretary.

Gem City assets at May 31 totaled \$157,237; current assets \$90,822; property, plant and equipment \$63,371; current liabilities \$38,850; capital stock, 350 no-par shares authorized, 205 issued and outstanding, with stated value of \$100 per share; surplus, earned, \$97,907. Net income in year ended May 31, 1940: \$88,134. Standard Aircraft Products Inc. assets Aug. 20 were \$22,546; current assets \$2,039; current liabilities \$2,357; capital, 40,000 preferred shares authorized and 700 issued and outstanding (\$5.25); 300,000 10 cent-par shares authorized and 148,350 issued and outstanding (\$14,835).

### Current SEC Reports

#### HAYES MANUFACTURING CORP.

Recent acquisition of McCauley Steel Propeller Co., Dayton, O., followed agreement of Mar. 29 with Ernest G. McCauley by which Hayes was to pay the latter \$5,000 plus certificates for 25,000 of its \$2-par common stock in exchange for (1) delivery of 251 shares, all of the issued and outstanding stock of the propeller firm; (2) exclusive license to manufacture the McCauley steel propeller; (3) acquisition of right for three years from Apr. 1, 1940, for services of E. G. McCauley at \$7,200 a year.

McCauley Steel Propeller Co., incorporated in Ohio Oct. 10, 1939, began operation Jan. 1, 1940, and at Mar. 31 reported assets of \$34,154, current assets of \$14,374, plant and equipment account of \$19,780. Current liabilities were \$34,496; capital stock (authorized 300 shares, no-par common) 251 shares at stated value of \$502. Deficit at Mar. 31 was \$844. Net income was \$756 for period Jan. 1-Mar. 31.

### Financial Reports

**RYAN AERONAUTICAL CO.**—Net income for calendar half: \$87,025 after charges and federal income tax provision (20 cents each on 439,193 shares) against \$17,204 year ago and 1939 profit of \$90,728. Although income from parts manufacture still is important, that from aircraft sales now predominates, accounting for \$742,973 out of total manufacturing sales of \$1,145,895 in the half. Gross revenue from all sources: \$1,388,330 against \$316,656 year ago. Earned tuitions of 100% owned subsidiary, Ryan School of Aeronautics: \$217,511 against \$203,536 for entire year 1939 and \$44,794 in 1939 first half. Consolidated backlog about \$5,200,000.

**SPERRY CORP.**—Net income (consolidated) for calendar half: \$4,028,294 or \$2 each on 2,015,565 \$1-par capital shares, against \$2,469,576 (\$1.23) year ago. British subsidiary is excluded.

Gross income was 7,888,245; operating profit \$5,763,074; total income \$5,831,990. Total assets \$28,125,104; current assets \$21,665,124 (cash \$5,560,055); current liabilities \$10,338,648. Surplus: capital \$4,334,246; earned \$11,436,645.

**AIRCRAFT ACCESSORIES CORP.**—Net profit for three months ended July 31: \$11,260. July billings were 116% over May, the largest previous month. Ted Lynn, president, expects a high ratio of production and billings in coming months, with steadily rising backlog as government's aircraft orders are placed. Backlog at Aug. 15 was \$749,850 with negotiations pending for additional \$500,000.

**ALUMINUM INDUSTRIES INC.**—Consolidated, unaudited, profit for calendar half: \$71,708, after charges and provision for federal income tax, or 72 cents each on 99,430 no-par capital shares, comparing with \$115,899 (\$1.16) year ago. Net sales: \$1,695,863, against \$1,657,120.

**LOCKHEED AIRCRAFT CORP.**—Net profit for calendar half: \$2,022,619 after charges, including income tax provision, against \$508,860 year ago, of \$2.02 against 65 cents each on 1,000,000 shares and 775,000 shares, respectively. Sales were \$19,268,434 against \$12,565,117 year ago. June 30 backlog was \$169,845,415 including \$135,686,738 in foreign military orders, \$6,386,481 U. S. military and \$27,772,194 commercial orders.

Balance sheet shows current assets \$35,857,514 including \$18,467,207 cash and current liabilities \$28,601,315, against corresponding figures a year ago of \$9,410,495, \$1,169,913 and \$5,803,074. Deliveries were 165, including 139 for Britain. (Complete statement not yet received).

**ATLAS CORP.**—Profit for calendar half: \$3,920,055, with net assets \$53,932,487, or \$1.14 each for 2,830,042 common shares after allowing for \$50.25 per share for 429,534 outstanding preferred shares. Asset value per common share at June 30, 1939, was \$11.

Assets include \$13,128,507 or about 23% in cash, a portfolio of quoted securities valued at \$25,141,066, and \$16,429,540 in non-consolidated companies.

Aviation common stock in portfolio June 30: 2,600 of Bendix Aviation Corp., quoted at \$73.125; 5,000 of Consolidated Aircraft at \$100.00; 1,200 Class A of Curtiss-Wright, \$28.950; 32,800 shares of Curtiss-Wright common at \$229,600; 2,000 of Douglas Aircraft at \$137,500; 16,000 of General Motors at \$696,000; 4,500 of Lockheed at \$108,000; 2,500 of Martin at \$71,875; 40,000 of Northrop Class A at \$220,000; 33,000 of Northrop warrants at \$90,750; 12,000 of Republic Aviation at \$51,000; 5,000 Sperry Corp. voting trust certificates \$182,500; 5,000 of Thompson Products at \$157,500; 7,500 of United Aircraft at \$256,875.

**AERO SUPPLY MFG. CO. INC.**—Net income for calendar half: \$281,142 after charges or 66 cents each on 412,461 Class B common shares after dividend requirements on \$1.50 Class A stock. Profit year ago: \$48,233 or 9 cents.

**AVIATION CORP.**—Consolidated net loss in six months ended May 31: \$289,825, against loss of \$1,000,207 year ago. Net loss for May 31 quarter: \$93,377, against loss of \$196,448 in previous quarter. May 31 backlog was \$4,131,275. (Operations of Vultee Aircraft Inc. are not included). Net sales in six months period: \$1,795,671.

**B. F. GOODRICH CO.**—Net profit for calendar half: \$1,362,691 (26 cents a common share) against \$3,122,728 for similar 1939 period, which included non-recurring profit of \$415,188.

**HOWARD AIRCRAFT CORP.**—Net loss for six months to May 31: \$73,191.

### Brewster Vice President



R. D. MacCart

Chief engineer of Brewster Aeronautical Corp., Long Island City, N. Y., was elected vice president in charge of engineering by the board of directors on Aug. 26. MacCart joined Brewster on July 1 and formerly was an engineering officer with the U. S. Navy with rank of captain. Prior to joining Brewster, he was attached to the Naval Aircraft Factory, in charge of the material laboratory including all structural and dynamic tests of aircraft. MacCart was graduated from the engineering schools of Massachusetts Institute of Technology and Harvard University.

against loss of \$19,752 a year ago. Sales increased to \$198,236 from \$32,041. Balance sheet for May 31 shows current assets \$213,905, including \$14,101 cash; current liabilities \$96,638.

### APPLICATIONS FOR LISTING

**SOLAR AIRCRAFT CO.**, 120,000 common shares, \$1-par, to be registered on Los Angeles Stock Exchange upon notice of issuance.

### Babcock Corp. Expands Plant After Purchase of Rover

Babcock Aircraft Corp. plans construction this fall of a one-story unit (20,800 sq. ft.) and smaller buildings at De Land (Fla.) Municipal Airport with cost estimated at \$90,000, according to Maj. Fred L. Foster, president.

The expansion move followed closely news that the company had purchased all assets of Rover Aircraft Motors of Dayton, O., valued at \$185,000. All equipment is being moved to De Land, and engine production is scheduled to start soon.

The Rover engine is a four-cylinder inline inverted aircooled unit of 180 hp. with weight of 1.06 lbs. per hp.

Foster disclosed that the first of the new Babcock planes will be flown to Washington where it will be shown to military and CAA authorities. The ship is powered by a 125-hp. Phillips 333 engine.

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is intriguing. Ship after ship by the minute . . . Stratoliners, transports, Clipper ships, Army and private planes . . . scores of them provide a stirring panorama for diners on the spacious, cool Aviation Terrace.

★ ★ ★

There are lulls when one hears the echoing music of the orchestra playing for dancers in the attractively appointed glass-enclosed main restaurant. Couples come and go—all are excited . . . thrilled . . . impressed. At intervals the loudspeaker drones out plane departures—routine local flights. Suddenly, in Spanish, it may call passengers for Lisbon or Rio de Janeiro or Mexico City.

★ ★ ★

The service is keyed to the setting . . . fleet and unobtrusive. The cuisine is that of New York's famous Hotel New Yorker. And you enjoy the excellent food more because the prices are moderate—complete dinners being served from as little as \$1, delicious cocktails from 25¢. You come away with a delighted, exhilarated feeling. And you return again and again.

### Day . . . vies

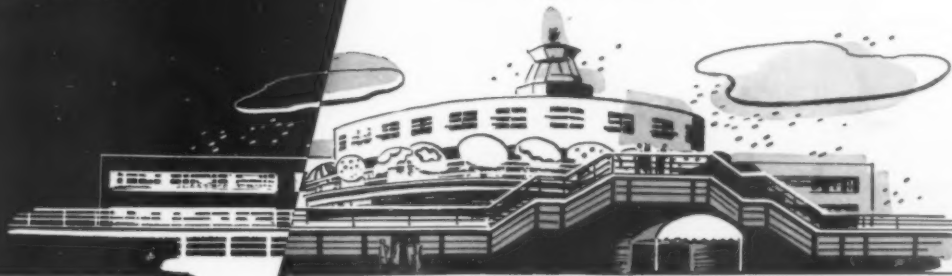
with night in interest. Skyscrapers provide the backdrop for the spectacle you are to witness. In the foreground are tremendous ribbons of concrete stretching into infinity. Dancing along them like fiery ballerinas are the silver airships.

★ ★ ★

Luncheon at the Aviation Terrace gives you a box seat for this mammoth pageant for as you dine, craft of every description head for some far, half-secret destination. Unconsciously your thoughts follow . . . and that's what makes lunching at the Aviation Terrace such fun—you can loll and laugh and savor every morsel of your tasty luncheon in perfect leisure, unhurried.

★ ★ ★

The meal may be served out of doors, or in, depending on the clemency of the weather. Complete luncheons are available for as little as 75¢. The Aviation Terrace is open for luncheon thru dinner and supper. Sharing its popularity is the truly informal Kitty Hawk Room, with excellent views to be had from its great windows, excellent liquors from its circular bar, and food described by but one word—superb!



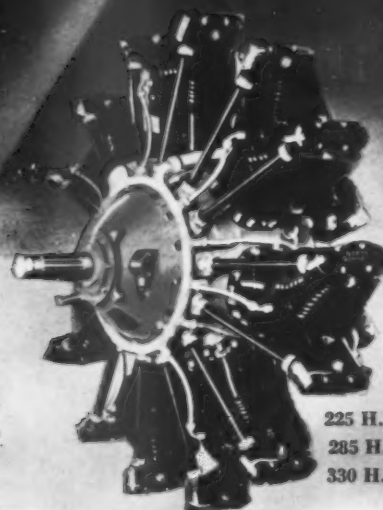
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